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Editorials

SHORT SHOTS AND LONG CONCLUSIONS

The Supreme Court of the United States made and recognized history when it handed down those momentous decisions declaring unconstitutional the N.R.A., the railroad pensions act and similar legal tripe. When the august tribunal, the sanctuary of justice in a land debauched by alien, socialistic, undemocratic and *unAmerican ideas gets around to the question* of so-called "health" or "sickness" insurance or *state medicine, and the Munchausenistic* "Social Security Act" then the scales of justice will right themselves where the medical profession is concerned.

* * *

What has been called the "inevitable bureaucracy" of sickness and health insurance is now considered the best "longshot gamble" by that horde of parasites which feeds upon the actual laborers anrd tax-payers of the nation. Examine the high costs of relief administration and the announcement of the Illinois section that "executive costs" *must come down,* and the answer is not hard to find.

* * *

American labor rather than unAmerican propagandists should dominate the United States wage system. The American laborer, whether he wears blue jeans or white collars would rather have a weekly pay envelope that will let him pay his own doctor's bills rather an assessment that lets the other fellow do the job. The other fellow is usually a sociological "middleman," trained to take somebody's orders and then to spend somebody else's wages. This system of bureaucratic spending is getting a big jolt from the findings that the mass system of relief orders yield only chicanery and poor service. So the idea now is to give the dole in cash and let the benefactors do their own buying rather than to spend so much money in salaries for the political jobbists in administrative posts, which is the Washington idea.

The German medical act is said to contain 3,000 sections. Now if there is a "boss" for each section, and if the socialists finally get the "German idea" transferred to America it is easy to figure just how many political jobs this will mean at the taxpayers' expense and why some politicians are so eager for State Medicine in the United States. The trouble with state medicine of course is that it is far more "state" than "medicine." Every high school boy remembers the exclamation of the Bourbon who remarked, *"L'etat? L'etat est moi."* That is the idea of the lobbyist and bureaucrat, "The state? I am the state."

It might be as well to recall the comment of another Frenchman—"L'apres moi, le deluge." What will happen to the country when the cheating communist has ruined the country and the nation beholds the result of "After me, the deluge?"

* * *

The panel doctor finds himself a physician on the ten cent store idea. Austria, England, France and Germany reverberate to the same wail. Nickle and dime stores may flaunt their wares on the boulevards. Will American citizens have such service in their clinics, their hospitals, or their family sick-rooms?

Chief Justice Oliver Wendell Holmes said: "It has long been recognized that legislation is just as likely to follow public emotion as to be guided by scientific knowledge." Oliver was right! But in the case of the Social Security Act legislation would seem to have followed the public destroyer, and the communist at the gate. If the Puritan ancestors of the late Chief Justice were on the job today it is likely that scientific knowledge of the fowling-piece and powder-horn would clean out a few of the warrens of Washington where bureaucracy breeds, communism concentrates, and the Constitution is regarded as lightly as last year's song-and-dance act in the vaudeville show of nations.

* * *

Charles H. Pfifer, president of the Chicago Medical Society, says wisely. "Thorough organization is especially necessary at the present time with the great political, social and economic unrest, when reformers of every type are beleaguring the medical profession and offering all sorts of Utopian panaceas to a guillible and bewildered public. *We must meet organization with organization. As individuals we can do nothing and may be forced to dance to the tunes of sociologists and reformers."*

Dr. Phifer sounds the theme song of the ILLINOIS MEDICAL JOURNAL for many years. With keen vision Phifer probes the future. Is it fair, is it decent, is it MORAL, for members of the most necessary unit in human economics to turn "geisha-girl" for the whims of invading socialists, cheap communists and moneymad theorists coupled with politicians to whom power and pay are the only ethical indices of life and who can sense no other moral background?

What has become of the Declaration of Independence? Where is the Constitution of the United States about to land? According to the present legislative tendency socialistic powers and bureaucractic ideas this sacred document will soon rest in the national garbage barrel.

* * *

Public Health Medicine is in reality national prophylaxis and is not to be confounded with the science of curative medical practice or remedial surgery. Yet it is on the ladder of *Public Health Medicine* standing rooted in "government appropriations" that State Medicine is climbing to confound Americanism and to reduce the United States to a state that is worse than Russia. Russia! Pity the poor soviet where even castor oil, or surgical gauze are too precious for the ills of the proletariat. Universal and promiscuous abortion would seem to be the soviet's gift to medical practice, bounded of course by the confines of the soviet state. What right has the United States government to practice medicine? What cash except that which the citizenry, including medical men, put into the government purse? Let the government, national or community, care for the indigent sick, or the necessarily unemployed but let physicians practice medicine, let them rule as to how medicine should be practiced and let the medical profession pursue the tenor of its ways undisturbed by the interfering laity whose ignorance of medicine is equalled only by the supreme self-conceit of its meddling egoists.

* * *

More than 35,000,000 persons in the United States today are gainfully employed. These wage earners and their dependents, total something like 100,000,000 persons or perhaps 80% of the population. Why should the medical pro-

fession of the United States be first pauperized and later destroyed for a mere 20% of the country's inhabitants?

The answer is that this condition is being sought in order to increase political power of a few bureaucrats; to furnish easy berths for political hangers-on and to let those un-American Americans in whose pockets burn the soviet shilling, earn the wage they have collected from organized, embattled and attacking socialism and communism. No enigma there—not even a cross word.

MEDICAL OFFICIALS OR MEDICAL DOCTORS — WHICH? HOW LONG BEFORE POLITICAL "JOB-HOLDERS" ABSORB MEDICINE'S TIME-HONORED PROFESSION?

Over close affiliation between church and state is an historical wrecker of nations. Today such coalition between politics and medicine indicates the early destruction of the most human and the most mortally necessary of all the professions—the science and practice of medicine.

As has often been declared in these columns when politics controls medicine then "the tail is wagging the dog" and the end is near.

One of the ablest comments anent the situation appears in the October 1, 1936, issue of "Medical News," the official organ of the Medical society of the State of New York.

Too lengthy to reproduce here in full, the following excerpts from the editorial will bear careful reading:

"The country's educators should ponder on the problem that will confront them if the efforts of the protagonists of compulsory health insurance have their way, and such a form of delivering medical care to our people is thoughtlessly adopted.

"What type of youth would be attracted to a medical career? After a difficult medical course of four years, and the necessary preparatory one, then the arduous post-graduate internship—*to be qualified for what? A job, with a fixed income, with a definite number of assigned patients who, to follow the custom set in England, are not thoroughly examined even if there were time allowed to do it; fixed hours of work, perhaps a paid vacation, and at the end—a pension. A job-holder's career! A government employee with all that this implies!*

"Obviously such a system will attract quite a different type of men than was drawn into the present system, men who have won high renown and have given American medicine the high place it holds today.

"Will not the emphasis in medical education also have to change? *Will it not be necessary to train American medical officials rather than American doctors?* We see a similar change in a trend in the field of nursing. Formerly all student nurses were educated alike, now there is a distinct change toward *educating nursing administrators.* Those who actually handle the sick have less arduous curricula to cover. Since the financial income will be greater among the medical administrators of the system than among those of the rank and file who handle the sick, medical education will soon alter to meet the demand of those who will *seek careers, not as physicians to the sick but as a part of the controlling bureaucracy set over the physicians.* The colleges will give two types of education to meet the changed conditions. It will become necessary to lower standards (as was done in Russia) to attract sufficient numbers to meet the needs of the *so-called lower branches of the medical system.* Lower standards, reduced entrance requirements, and a totally different type of individual will be found taking up a medical career. And all this is proposed "for the betterment of mankind!"

"We, who are opposed to compulsory health insurance, call to the attention of our educators these thoughts, for we are deeply concerned with the *quality* of medical care our community will receive. We desire only the best quality of medical care obtainable, delivered by a man or woman of the highest type.

"The medical educators of our country have here a responsibility that they must continue to carry. Compulsory health insurance, obviously, is not an economic problem nor wholly a sociological question. It is a problem with which the educators of our youth are also concerned. Medical education must be planned to the end that we may maintain what we have laboriously won —a lower death rate, and a lower morbidity rate than any country where compulsory health insurance is in force, and a level of preventive medicine not equalled in any of the countries of Europe whose example we are so blithely urged to follow."

VITAL STATISTIC RESULTS BELIE PROPHECIES

The original "Act" from which eventuated Health Insurance,—a veritable dragon's egg—declared that it was "an Act to provide for insurance against total loss of health and the prevention and cure of sickness and for purposes incidental thereto."

Yet in England and Wales, the two countries among those working under "health insurance," which afford the most likely comparable conditions with those existing in America, the mortality rates WITH health insurance, the theorists' panacea for all ills, are far below those of the United States. Since no statistics are kept for non-fatal illnesses, only mortality figures can be cited. The compilations are from figures for the year 1934. It would seem that the United States would better stick to private practice and a lower death rate than to increase taxes and decrease population for the sake of aping an European custom so inordinately disadvantageous as "State Medicine" and "Health Insurance."

Here are a few of comparative vital statistics for various diseases for the year 1934 taken from an article by Fred L. Hoffman, LLd., entitled Compulsory Health Insurance and Disease Control appearing in the December, 1936, issue of The Weekly Underwriter.

Erysipelas prevailed in England and Wales at the rate of 3.6 per 100,000, while in this country the rate was 1.5. This highly infectious disease requires prompt medical treatment for efficient control and reduction in spread. In England and Wales the mortality increased from 2.6 in 1930 to 3.6 in 1934, while in the United States the rate decreased from 2.1 to 1.5.

Respiratory tuberculosis prevailed in England and Wales in 1934 at a rate of 63.5 per 100,000. The corresponding rate for this country was 51.2. There was a decrease in the rate in England and Wales from 73.9 in 1930 to 63.5 in 1934, and in this country from 63.4 to 51.2. Disseminated tuberculosis prevailed in England and Wales to the extent of 2.8 per 100,000 compared with a rate of 1.0 in this country. There was a decrease in the rate in England and Wales from 3.9 in 1930 to 2.8 in 1934, and in this country from 1.4 to 1.0.

Purulent infection, or septicemia, prevailed in England and Wales at a rate of 2.0 per 100,000 in 1934 and 0.7 in this country. The decline in the rate in the two countries during the last five years was about the same.

The cancer death rate in England and Wales was 156.3 per 100,000. For this country the rate was 106.3, a very marked difference. Cancer of the male genito-urinary organs prevailed at a rate of 17.7 in England and Wales and 9.0 in this country. This group includes the so-called mule spinner's cancer which purevails in England and Wales but not in this country. The mortality from cancer of the skin is about the same in the two countries, or 2.7 and 2.6 respectively.

The rate for rheumatic fever was 3.4 in England and Wales and 1.8 or about one-half, for this country. The English death rate declined from 3.8 in 1931 to 3.4, while in this country the decrease was from 2.5 to 1.8. This is a disease which requires careful medical supervision of the patient and prompt attention to his needs. The same is true of chronic rheumatism and osteoarthritis which prevailed in England and Wales at a rate of 7.8 compared with a rate of 1.3 for this country. The reasons for this marked difference are not fully understood but they are possibly partly climatic. Instead of a reduction in the rate there has been an increase in England and Wales from 7.5 in 1930 to 7.8 in 1934, while in this country the rate remained stationary.

Anemia-chlorosis showed a death rate of 6.6 for England and Wales and 3.1 for this country, or less than one-half. The rate increased in England during the last five years from 6.0 to 6.6, while in this country there was a decrease in the rate from 3.7 to 3.1.

Cerebral hemorrhage, apoplexy, etc., were much more common in the United States, the rate having been 85.5 in 1934 compared with a rate of 64.7 for England and Wales. The rate decreased in England and Wales from 65.0 to 64.7, and in this country from 88.8 to 85.5.

Other diseases of the nervous system show a decidedly higher rate for England and Wales, or 7.3 per 100,000 in 1934, compared with a rate of 3.1 for the United States. The reduction in the rate has been about the same for both countries.

Disease of the ear and mastoid sinus, the medical neglect of which is of serious consequence, prevailed in England and Wales at the rate of

4.1 in 1934 compared with 3.2 in this country. The rate has increased in England and Wales from 3.5 to 4.1, while the rate for this country declined slightly or from 3.3 in 1930 to 3.2 in 1934.

Acute endocarditis prevailed in England and Wales to the extent of 3.0 per 100,000 in 1934, and in this country at a rate of 2.8. Chronic endocarditis and valvular disease prevailed at a rate of 58.1 in England and Wales and 45.7 in this country. There was a reduction in the rate in England and Wales from 65.7 to 58.1, and in the United States from 56.1 to 45.7.

Diseases of myocardium are much more common in England and Wales than in this country, the rate having been 163.2 per 100,000 in 1934 in England against a rate of 108.1 for this country. There has been an increase in the rate in both countries, or from 120.9 to 163.2 in England and from 97.7 to 108.1 in the United States.

The rate for diseases of the coronary arteries and angina pectoris was 26.4 per 100,000 in 1934 in England and Wales and 42.8 in this country. The rate increased from 14.8 to 26.4 in England and from 24.1 to 42.8 in this country. The increase may possibly be the result of changes in classification for medical registration purposes.

For disordered action of the heart the rate in England and Wales in 1934 was 6.7 compared with a rate of 0.7 for this country. There was an increase in the rate from 5.3 in 1930 to 6.7 in 1934 in England and Wales and from 0.6 to 0.7 in this country.

Arterio-sclerosis likewise shows a decidedly higher figure for England and Wales, or 54.4 in 1934, compared with 18.0 for this country. While the rate increased in England and Wales during the last five years from 47.5 to 54.4, it decreased in the United States from 18.4 to 18.0.

Decidedly, here in the United States we do better *without* Health Insurance.

PROOF OF THE COST OF STATE MEDICINE LIES IN THE TAXES

The entire history of health insurance has proved that "sickness" is an indefinable condition which is often coveted by the insured person with no desire to get well.

The practice of medicine is mechanized unduly, personal responsibility diminished, diagnosis crippled, research hampered and so much time wasted on the urgencies of the would-be sick that none is left for the really disabled, under all tested forms of "Health Insurance" or "State Medicine."

The lack of universally adequate medical care, moreover, results more from indifference on the part of the people than from economic or other reasons. The Metropolitan Life Insurance Company found in a house to house canvass of several thousand families that the majority of parents who had failed to have their children inoculated against diptheria knew about the possible benefits, believed in preventive medicine but had simply neglected the matter. Would health insurance activate the will?

DERMATITIS FROM DYED AND OTHERWISE TREATED CITRUS FRUITS: REPORT OF TWO CASES

The practice of coloring citrus fruits by means of dyestuffs, aniline and other substances to give a fully ripened appearance has come into vogue only during the last two to two and one-half years. Eugene F. Traub, Richard E. Gordon and Laird S. Van Dyke, New York (*Journal A. M. A.*, March 13, 1937), saw two patients with a dermatitis from handling such treated and dyed fruit. In both instances the dermatitis was caused by the chemically treated or dyed fruit, their patch tests in both patients indicating yellow O B dye as the prime offender. Evidently the dye and chemicals used did not penetrate even to the inside of the peel, as patch tests with the inner surface of the rind gave negative results. Patch tests with the meat of the fruit also were negative. Patch tests with dyed orange skin were repeatedly found to be positive. Patch tests with known undyed and untreated skins (Florida oranges) were negative. In case 1, patch tests with dyed orange peel produced actual blistering of the skin and a severe focal and general reaction. The dyes used on citrus fruits may definitely irritate some skins. These dyes are not general irritants, because the majority of individuals do not react to them. Hypersensitivity to the dyes may be acquired by constant and repeated exposure. A circumstance of case 1 for which the authors are unable to account on the basis of information supplied them and despite their many repeated tests is the positive reaction to undyed oranges from California. All known dyed fruit from Florida gave positive tests, while the fruit from this state which to their certain knowledge was undyed gave repeatedly negative tests. The fact that this patient regularly reacted negatively to orange skins that they knew were untreated and undyed and gave positive tests to the citrus fruits from California obtained on the market here certainly seems to incriminate some preparation used on the California oranges.

MEDICAL ECONOMICS

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The nearness of the annual meeting of the Illinois State Medical Society, makes any comment on medical matters a very careful procedure. Basic decisions as to the conduct of the Society are decided at the meeting by the House of Delegates. These decisions are binding on the Council for the ensuing year. As a result serious consideration might be given to one or two matters. One is the question of the amount of the annual dues. It is the natural desire to keep the dues at the lowest level compatable with the needs of the society. The last two years the dues have been the lowest of any large state medical society in the country. In spite of this fact, the activities of the Society have been continued as before. However, many of the members of the society feel that with improved economic conditions generally and affecting the medical profession particularly, it would cause no hardship on the medical profession to increase the dues for the next year by a small amount. Those who have their ear to the ground feel that during the next few years and possibly the coming one, the definite decision as to the future of medicine in the United States will be made. In order to familiarize the public with the opinion of the medical profession a campaign of publicity more extensive and intensive than ever before will be required. The best example of such a campaign is that being carried on under the supervision of the New York Medical Society. Such a campaign costs money but should be of inestimable assistance to the medical profession in maintaining the practice of medicine as it now is, a personal business run by the medical profession for the benefit of the public. A small increase in the dues will help greatly in planning and conducting such a campaign. It is to be hoped that the delegates will give careful consideration to this proposition and not be swayed by oratory or petty prejudices in arriving at a decision on this one of the chief decisions to be made at the meeting.

The annual meeting of the Secretaries Conference will be held at 9:00 A. M. Tuesday morning, May 18, with D. W. Killinger of Joliet presiding. The program will be given over to a consideration of the problems of running the medical organizations of the counties and state and should be attended by the officers of every county society. In addition the question of state and socialized medicine will be discussed by the outstanding men of the state. Those interested in these problems will find the program for this meeting complete in this journal. It is to be hoped that there will be a good attendance and that there will be free discussion. These meetings are held to answer the questions which are not covered by other means during the year. May we repeat the hope that there will be a large attendance at this meeting.

The Chairman of this Committee wishes at this time to thank every member of the state society, who has assisted during the past year in preparing material for his column. He wishes particularly to thank the Editor for his cooperation in editing and preparing the articles sent to him for printing. The Committee hopes that the work will be continued in the coming year and that the interest of the rank and file of the profession will increase in the work of the new Committee to be appointed immediately after the annual meeting.

An article by Past President Charles S. Skaggs of East St. Louis is presented this month for your attention. Dr. Skaggs is an able thinker and writer and we trust that his article will please you.

E. S. HAMILTON, *Chairman,*
Medical Economics Committee.

ETHICS VERSUS ECONOMICS

CHARLES S. SKAGGS, M.D.

Investigations have come into our social life as a result of our effort to deceive one another.

For a period of time this was confined to a few unscrupulous; but as these were exposed and others learned of how profitable it was and how long those engaged in it had been able to conceal their practice, they began to imitate and at each exposure there were more recurrences until now it has become a practice too large to deal with without the danger of upsetting our whole social and economic structure as well as our political setup. This is dangerous enough, but when you consider that when an investigation is asked for or demanded, an added danger is inserted that is far beyond description, if the investigation should happen to be an honest effort to reveal the facts.

To safeguard against these dangers and to promote the happiness and security of our people, investigations are now made for the purpose of better concealing the facts by the appointment of commissions composed of those who have by experience and study qualified themselves as experts in disseminating false propaganda and voluminous reports so worded that they are non-understandable and meaningless and there is absolutely no opportunity of detecting the facts which the commissions were appointed to ascertain.

At the time the medical profession first became fully acquainted with this condition, the report of the committee appointed to investigate the type and cost of medical service that was being used in the care of the sick of our country by the family physican was also made. Nothing need be said about the qualification of those making the majority report as to their qualification to render an opinion regarding those who had to do with the sick in their homes and private hospitals.

These men had trained themselves for a period of years by having no contact with the sick that were cared for by the family physician and by non-association with the private practitioner of medicine. By such training and study they were naturally qualified to make such an investigation and to make a report that would not contain the facts and would enlighten those who did not want to know the truth; also to arouse an ill feeling toward their doctor, by those who were served by the family physician. This had an effect upon medical ethics that has not been measured as yet. When one reviews the many attacks that have been made against the doctors who bear the brunt of the practice of medicine, for the background of medical progress and maintain organized medicine, he must ask himself what is within these men that encourages and enables them to hold together and fight for the true principles of medical science and service.

It is this group that has maintained and fought for the true ethics of medicine and is determined to continue the fight and is revealing the truth about medical service at its own private expense. It is a well sounding statement that truth crushed to earth will rise again; but it must ever be remembered that truth crushed to earth will never rise unless some one lifts it up. Medical ethics are of the purest of truths. True it is that they have been crushed to earth, but they shall rise again to the glory of medicine because organized medicine will lift them up and again place them upon the pedestal from which they were taken by those of selfish greed.

Man cannot separate himself into parts and continue to function. Neither can medicine be separated into parts and continue to render an effective medical service. We must continue to live as a medical body regardless of our special interest. There are no special parts of medicine that continue to function without a continuity of the whole.

The musician may train his fingers to find the keys with lightning speed, yet long before these fingers mastered the art of speed and knowledge of place and touch other parts had done much work.

Ethics, in the true sense, is that which gives medicine poise, dignity and beauty. It must remain a part of medicine or all that is worthwhile will be lost.

Since economics has presented itself into our ranks we need ethics all the more. We can never solve the problem of economics without a high standard of ethics. Could any true physician be asked the price he had for saving a life? No form of economics must be permitted to mar the beauty of medicine. Our economic program must in the final adjustment blend with medical ethics.

The physician must ever be on his guard to prevent himself from becoming a stranger in the profession that he has created and this is a grave danger that confronts us at this time. Business must have a price tag but medicine dare not. To prevent this we must recultivate

our ethics and remove the weeds that have sprung up, the seed of which has been sown by those who looked only for profits.

I have felt from the first time I heard the expression, "The Cost of Medical Care," that danger was ahead. This statement has carried more undesirable things into the medical profession than any other group of words with which I am acquainted. It has even caused doctors to figure the cost of a visit to the sick and one well knows how foreign this is to medical thought, yet it has had a far reaching effect upon our modern ethics.

Why write about ethics? They are so simple and plain that no one will care to read what you write and they are just something that the other fellow should follow and have no application to me.

Is this not nearly true of most any subject about which one could choose to write? There are perhaps two reasons why anyone expresses his thoughts in writing today. The first incentive is probably the hope of being able to write something that will be poor enough to sell for money; the other a more selfish one, that by writing something that someone else might read, one may be sufficiently interested in the subject to learn something about it oneself.

I have, for a number of years, been interested in the subject or more correctly the question of economics and the more I learn about economics, the more I find that what I formerly thought economics pertained to, I realize it does not. I confess that at one time when I heard or saw the word "Economics" my first thought was money; but it is becoming hard for me to associate money with economics, for I now see that the fundamental principle upon which a stable economic system can be supported is a fundamental ethical standard that is conformatory to that rule set down nearly two thousand years ago.

Let me use that new meaning of an old word, "Refresher Courses." "Therefore, all things whatsoever ye would that men should do to you, do ye evenso to them, for this is the law and the prophets."

Then if we are to have an economics system that will support society and bring social security we must first return to an ethical standard that will permit such an economics system to exist. To have height and depth we must have a level for them to have a beginning.

Why do we have medical ethics? This question was asked of his radio audience last November by Dr. Floyd S. Winslow. He then answered the question in his address. He made this statement in the beginning. "There is probably more popular misunderstanding on the subject of medical ethics than any other subject connected with the practice of medicine." Then he followed with another question. "What is this code of behavior to which the doctor is bound?" Does it operate for his benefit or for the benefit of the public? My answer to this last question has always been from the time I first understood it sufficiently to offer an answer, that anything that would benefit the doctor must first benefit the public.

Is there existing in the minds of any large number of physicians a misunderstanding of medical ethics? I am inclined to believe that there is not. There may be evasions of the code among many of us, but I question if it is due to the fact that we do not know what is right or wrong. Is it not done for selfish glory or greed? I confess openly that when I have stepped aside from this code it has been for this reason. Others may not have known but it is so simple to know that one must at least set up some resistance to the statement. Let's be charitable and grant it is true that there is some reason for one to write on this subject and to suggest that county societies should devote a few programs each year to the subject of ethics. For if we are to remain a free profession we must do and practice the principles that gave us our freedom. Ethics is what we do, not what we believe or say. It must be a principle that guides conduct and in my opinion medical ethics has to do with what is right and not what is wrong.

Dr. Richard Cabot is credited with the statement in Dr. Winslow's talk of saying "Most of what used to be called goodness has rightly fallen into disrepute because it is inefficient." Be this wholly or partially true the question of ethics remains the same. I am inclined to the opinion that a large part of what we once considered good has not been discarded because it was inefficient, but because it was a barrier to our selfish interest. Dr. Cabot reveals this in further saying that ethical diagnosis like physical diagno-

sis, has a practical end. This gives too much room for what you want and too little room for what really is, for there is a right and there is a wrong. I do not agree that medical ethics is an agreement between doctors so that each one knows what to expect of the other only in so far as they should know what the other should do. I agree that we have thrown overboard sufficient amount of the goodness of yesterday to cause people to say and think, why shouldn't I do as I please? Why should I be bound by rules or responsibilities to duty or customs, or to public opinions? Such thinkers say "I" never "We." Any student of society is convinced that such a rule of conduct cannot long exist. We cannot live in groups with these "I's" and we will not.

No one disputes the statement openly that the practice of medicine is a profession. We are all willing to be professional but many resent the fact that the prime object of our code of ethics is the service we can render. The fact remains that we assumed this obligation and we are duty bound to conduct ourselves in accord with these principles. On this rests our independence and freedom from government control, economic stability and progress of medical science. We have advanced medical science to the place it now is because we gave of our knowledge to each other. We can hold the public only by offering to them the benefits of this knowledge within their ability to give to us. Our service must never have a market value.

It has been said that the time has come when the doctor should be paid for his or her discoveries in medical science and some steps have been taken in that direction in a few instances. This has been frowned upon by the profession and rightly so. All that becomes new in medicine comes from that which is old in medicine. This has been the road on which the progress in medical science has travelled.

The sick have made their contribution to medical science. They have been our patients. They have suffered more and been sick longer when we knew less of our art. We cannot escape our obligation to our patients. 'Tis true they owe us much and if doctor and patient are left together they will solve their problems. No doubt there will be mistakes committed by both, yet these do not constitute a reason to separate doctor and patient. If this ever happens it will be but a short period of time we will wait to realize that the reasons considered necessary to regimentate the doctor were but passing shadows compared to the clouds that will darken the medical horizon. The health of our people will be lost in the darkness of mistakes and soon the cry will go up, "Give us light to light the darkness."

Our loyalty for whatever we may add to medical science must ever be the royalty we receive from our medical co-worker.

The ethics of medicine must be from patient and doctor, a loyal relationship. The physician must let his patient understand that his money cannot heal him. The patient must let his physician know that he will contribute to the best of his ability to minister to the physician's financial needs so that he can always be able to advance his knowledge and thus serve his patient better when sick. This is the relationship for which the medical profession is striving. The doctor cannot harm his patient and escape harm to himself and the same is true of the patient.

Medical ethics must not be designated as the Chinaman said of our Christian Religion, "Christianity is a very talky religion." Our ethics must be our conduct and not our talk. We have in the past decade suffered much from the epidemic of alibi. It has infected society in all its branches. We have become experts in excuses. Power can only be used to destroy its strength. The medical profession has power. It knows this and it further knows that this power rests in better service to the sick. Our only weakness is that we are not standing together as we should to protect our rights in the delivery of our service.

Correspondence

BEG YOUR PARDON

Chicago, Ill., April 15, 1937.

To the Editor: In the April, 1937, issue of the Illinois Medical Journal, page 288, you have entered my name as one of those intending to be present at the dinner, given in honor of Dr. Carl E. Black of Jacksonville, Illinois. You have put me down as Associate Professor of Surgery at Northwestern University Medical School. I am, and have been for some time, Clinical Professor of Surgery at Rush Medical College,

and I would thank you to make the appropriate correction.

Kellogg Speed, M. D.

ALUMNI ASSOCIATION, COLLEGE OF MEDICINE, UNIVERSITY OF ILLINOIS

Your officers extend a most cordial invitation to very alumnus and member of the faculty of our Alma Mater who attends the Illinois State Medical Meeting to come to our annual Alumni luncheon, which will be held this year at the Pere Marquette Hotel, Peoria, Wednesday, May 19, 12 o'clock noon. This is always a good reunion.

Good food, a good program and a good time are assured. The local committee in charge of arrangements, Drs. K. N. Petri, W. A. Malcolm and E. C. Kelly are anxious to make arrangements for you. Please aid them by purchasing your tickets early. They may be procured at the registration desk at the meeting of the Illinois State Medical Society.

CHARLES H. PHIFER, *Chairman.*

WASHINGTON UNIVERSITY ALUMNI-MEDICAL SCHOOL

There will be a Washington University Medical Alumni reunion on Wednesday, May 19, at the Pere Marquette Hotel, on the occasion of the Illinois State Medical Society meetings. The exact time has not yet been set, but this information can be obtained when registering at the meeting. It is hoped that there will be a good turn-out, and Washington University alumni are urged to be on hand for their School's "get-together."

NANCY L. BLAIR, *Executive Secretary.*

INTERNATIONAL CONGRESS OF RADIOLOGY

One of the most outstanding scientific events ever held in the United States has been set for Chicago this September, when the Fifth International Congress of Radiology convenes. It will be the first time that the world leaders in the medical and scientific development field of x-ray and radium have met in America, according to Dr. Arthur C. Christie, Washington, D. C., president of the Congress. The dates are September 13 to 17, inclusive, and the meeting place is the Palmer House.

At least 500 distinguished delegates and guests from a score of European countries as well as physicians from Mexico, Canada and Central and South America are expected to attend, with more than 2,000 other delegates and visitors from all parts of the United States.

The annual medical conventions of the leading radiological bodies of this country will be merged with the international congress. These include the American Roentgen society, the American College of Radiology, the Radiological Society of North America and the American Radium society.

The first International Congress of Radiology convened in London in 1925. Meetings are held every three years. The physicians and physicists met in Stockholm in 1928, in Paris in 1931 (where they paid tribute to the then living Madame Curie, co-discoverer of radium) and in Zurich in 1934.

Leaders in other branches of medicine will participate in the Congress. "The Unity of Medicine" will be the theme of the entire Congress.

"These international congresses seek to maintain a continuity of program over the years, and in consequence such vital subjects to the radiologist (and to the general public) as diagnosis and treatment of cancer and many other diseases and teaching and training in radiology will be on the agenda of this congress as well as at former meetings.

"Radiology is an important branch of medicine, and is indeed part of the entire tree, and not merely a specialty as it was once regarded," added Dr. Christie.

More than 250 scientific papers will be read at the five-day meeting. These will be delivered in each lecturer's own language and will be automatically flashed on screens in English, German and French as the papers are read.

What will probably be the greatest scientific and technical exhibit in the history of a radiological congress will be assembled by physicians, physicists and manufacturers of such equipment in conjunction with the congress.

The general secretary of the congress, Dr. Benjamin H. Orndoff, is in charge of headquarters at 2561 North Clark Street, Chicago, Ill.

HYPERTHYRODISM MASKED BY SYMPTOMS OF ACUTE ABDOMINAL CATASTROPHE

William E. Robertson, Michael G. Wohl and Harold F Robertson, Philadelphia (*Journal A. M. A.*, Feb. 20, 1937), consider instances in which the acute symptoms and signs referable to the abdomen are due entirely to the overactivity of the thyroid. The symptoms referable to the abdomen may be so severe as to suggest a surgical catastrophe. In two of three such cases the abdominal signs mimicked acute appendicitis. One of these patients was operated on and a normal appendix was found. The pains in the third patient were localized in the left upper quadrant of the abdomen. Postmortem examination showed no abdominal pathologic condition to account for the pains. Differentiation is not always possible, since hyperthyroid patients may harbor lesions of the gastro-intestinal tract. When appropriate therapy is applied, the abdominal symptoms disappear with other signs of hyperthyroidism. In the surgical cases the signs and symptoms usually progress.

THE ILLINOIS STATE MEDICAL SOCIETY

Organized 1850

Eighty-Seventh Annual Session

Hotel Pere Marquette, Peoria, Illinois

May 18, 19, 20, 1937

Registration Bureau at the Official Headquarters—
All Technical and Scientific Exhibits at the Pere Marquette.
All General Sessions and Section Meetings under one roof.

PROGRAM

Dr. Rolland Lester Green, President.

Picturesque Peoria — Convention City.

Invitations to Peoria.

President's Dinner:
Ball Room,
Wednesday, 7 P. M.

Veteran's Service Dinner:
Pere Marquette,
Tuesday Evening

The Stag:
Ball Room, Tuesday, 9 P. M.

House of Delegates:
Tuesday, 3 P. M.
Thursday, 9 A. M.

General Sessions:
Tuesday, 1 P. M.

Oration in Medicine:
1:30 *P. M.*

Oration in Surgery:
Wednesday, 11 A. M.

President's Address:
Wednesday, 1:30 P. M.

Induction of President-elect,
Rollo K. Packard.
Thursday, A. M.

Secretaries' Conference:
Tuesday, 9 A. M.

Conference on Diseases of Children:
Vogue Room,
Tuesday, 9 A. M.
Pediatric Papers (See Section programs.)

Obstetricians and Gynecologists Meeting:
Tuesday, 9 A. M.

Women Physicians' Activities:
Tuesday, 9 A. M.
Tuesday, 6:30 P. M.

Central States Society of Industrial Medicine and Surgery:
Tuesday, 9 A. M.

Woman's Auxiliary:
Jefferson Hotel, Ball Room,
Tuesday, 9 A. M.

Section on Medicine:
Pere Marquette, Ball Room,
Tuesday, 2:30 P. M.
Wednesday, 9 A. M.,
2:30 P. M.
Thursday, 9 A. M.

Section on Surgery:
Early American Room,
Tuesday, 2:30 P. M.
Ball Room,
Wednesday, 9 A. M.
Early American Room,
Wednesday, 2:30 P. M.
Ball Room,
Thursday, 9 A. M.

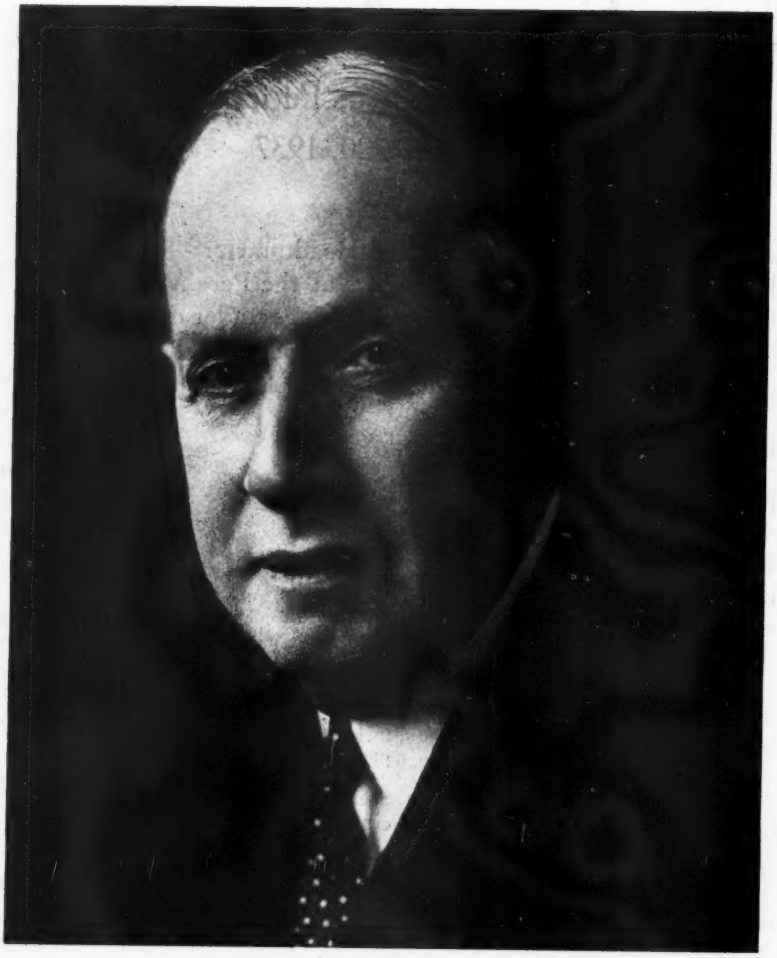
Section on Eye, Ear, Nose and Throat:
Creve Coeur Room,
Tuesday, 9:30 A. M. and
2:30 P. M.
Wednesday, 9 A. M. and
2:30 P. M.
Ball Room,
Thursday, 9 A. M.

Section on Public Health and Hygiene:
Jefferson Hotel,
Tuesday, 2:30 P. M.
Wednesday, 2:30 P. M.

Pere Marquette, Ball Room,
Thursday, 9 A. M.

Section on Radiology:
Vogue Room,
Tuesday, 2:30 P. M.
Wednesday 9 A. M. and
2:30 P. M.
Thursday, 9 A. M.

Scientific Exhibits:
Pere Marquette Hotel.



ROLLAND LESTER GREEN, M. D.

PRESIDENT, ILLINOIS STATE MEDICAL SOCIETY, 1936-1937

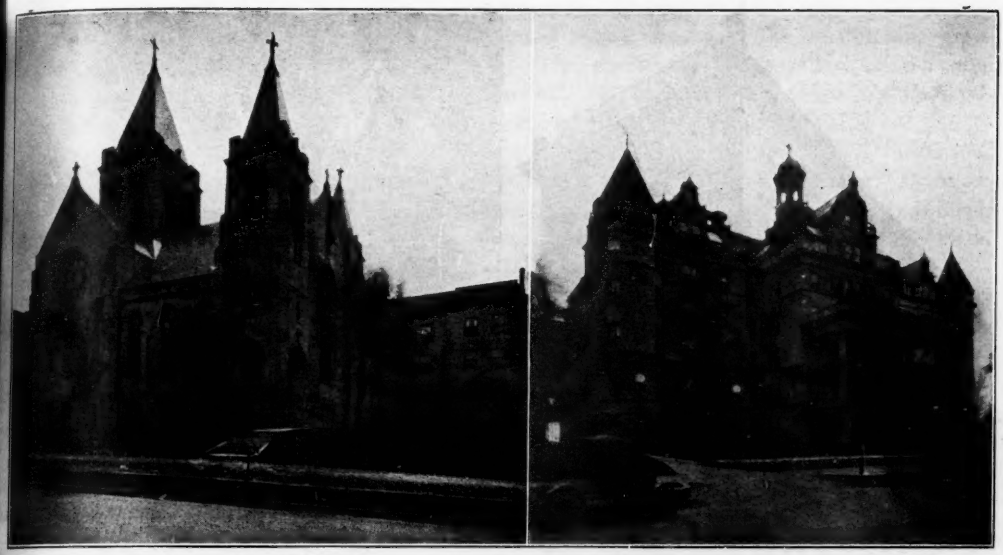
PICTURESQUE PEORIA

Pere Marquette Hotel
Convention Headquarters

Peoria
Country Club

Peoria—The Convention City

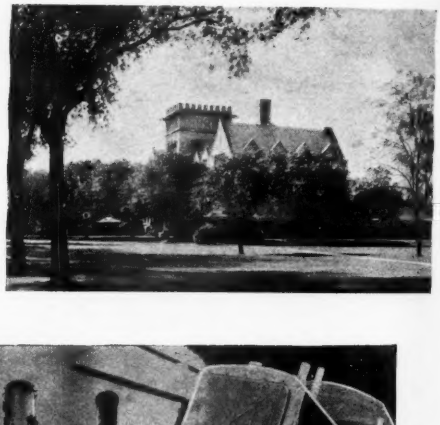
The Methodist Hospital



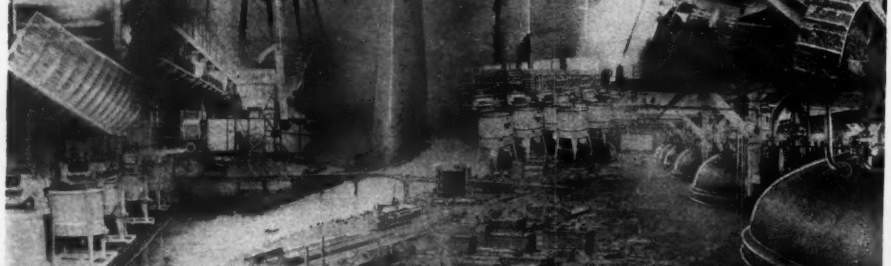
St. Francis Hospital—Two Views

Peoria State Hospital

View from Grand View Drive



Above—Jefferson Hotel
At Right—Bradley College
Below—Industrial Photo



PEORIA

Peoria, the bright spot on the nation's business map, offers a warm hand of hospitality to all its visitors. Founded centuries ago as an Indian village, it became the first permanent settlement of white men in Illinois when in 1680 the French explorer La Salle built old Fort Creve Coeur.

Slowly, perhaps, but very surely this favored spot became an important center in the development of the new world. First it was a French settlement, then a British fort, and finally an American frontier town.

Today Peoria is a modern city of 115,000 population; a city of contrasts, a city bustling with life and moving forward with the quick step of youth—yet a city proudly conscious of its rare and beautiful heritage. Your first impression of Peoria, in all probability, pictures a city busy with industry and commerce—modern stores serving a wide area are the equivalent of those found in a city twice Peoria's size, factories along the river front, warehouses, hotels, office buildings teeming with light and life. This is Peoria dressed in its work clothes.

But as you learn more about Peoria you will discover that behind this lies the real charm of the city. Here are fine churches and schools, a beautiful college, an art institute and a "little theater" with its own play house, and many organizations devoted to the religious, cultural and social advancement of the community. Peoria homes reflect these intellectual attainments.

Peoria offers ample opportunity for play. It is the site of many of the nation's major sporting events and has long been known as the bowling capital of the world.

Golf on championship links, motor boating, sailing, fishing, swimming and tennis give Peoria a full program of summer sports. Professional baseball, boxing, wrestling and interesting collegiate athletics round out Peoria's sports calendar.

The shores of the Illinois River both above and below the city draw duck hunters from a broad territory. The wooded hills of the river valley make possible a wide variety of small game hunting and constitute a naturalist's paradise.

Many modern theaters present the newest attractions in screen and stage entertainment. A visitor to Peoria will thrill to the beauty of the city's magnificent parks. He will be profoundly impressed with the breathtaking grandeur of the broad Illinois valley, as seen from Grand View Drive which Theodore Roosevelt called "The world's most beautiful."

Peoria is in the heart of one of the richest agricultural sections of the mid-west. There are many interesting side trips from the city through the rolling and well wooded by-ways of central Illinois.

It is natural that Peoria should be a popular convention city. Its central location and ease of accessibility, together with its distinctive hotels, adequate halls and meeting places and the charm of the city itself, attract thousands of convention visitors yearly.

More than two thousand different products are manufactured in Peoria's two hundred factories. This great diversity of industry probably accounts for Peoria's consistent prosperity as much as any other factor.

Here you will find the world's leading tractor concern, the largest distilleries in the world, one of the largest breweries in the country, large washing machine factories, an immense steel and wire mill, extensive farm machinery companies, and many others.

Peoria's location in the center of a great market, its nearness to raw materials and fuel, its unlimited pure water supply of uniform temperature, and its adequate shipping facilities make it an outstanding industrial center, destined to grow greater.

Peoria is served by every modern means of transportation. Fifteen rail lines enter the city. Frequent, scheduled air service stopping at Peoria's new modern airport brings the city within forty-five minutes of Chicago and St. Louis. Peoria is located on the Great Lakes to the Gulf waterway and with the facilities of a modern river and rail terminal has the advantages of water transportation. Peoria is in the very center of the Illinois network of paved highways.

These many forms of transportation not only serve industrial Peoria but also establish the city as an important grain and livestock market.

AIRPORT—200-acre modern Airport 5 miles from Court House on new paved highway. Regular air mail, passenger and express service provided. 5 transport planes scheduled through

Peoria daily by American Airlines and Chicago and Southern Air Lines.

AMUSEMENT—10 modern theaters present the latest stage and screen attractions.

AREA OF CITY—12.28 square miles.

ART INSTITUTE—Cultivates interest in art; conducts classes in drawing, painting, sculpturing and photography.

ARMORY—Illinois National Guard Armory. Seats 7,500. 18,000 square feet of floor space.

ASSESSED VALUATION — 1935 (city) $77,615,953.

BANKS—Greater Peoria has 4 national and 3 state banks. Clearings in 1935, $147,301,419.84. Debits, $538,792,466.00. Deposits, July 1, 1936, $57,678,864.09 (all time high). Time deposits, $17,291,224.87.

BUILDING AND LOAN—Peoria has 9 associations, total assets $28,767,283.25. Number of loans 8,566.

CHURCHES—Peoria has 109 churches including every denomination.

CITY PLAN—Of comprehensive nature provides for future streets, zoning, transportation, recreation, transit, civic center, school sites and park locations.

CITY GOVERNMENT—Aldermanic form. 20 aldermen and mayor.

CLIMATE AND TEMPERATURE—1935 year-round temperature average 50.8°. Climate mild. Rainfall 40.15 inches.

CLUBS—11 clubs, all having weekly luncheon meetings. 5 music clubs, 3 country clubs, 9 other clubs with buildings of their own, or permanent headquarters.

COAL MINING—Peoria and Tazewell counties have 83 local mines and 6 shipping mines, annual output 1,864,692 tons. Men employed, 2,387.

COMMUNITY FUND—22 agencies participate in fund raised annually. 1935—$169,000.

DISTILLERIES—Peoria is the largest distilling center in the world, having an annual capacity of 84,000,000 gallons on which the Federal tax would be approximately $200,000,000.00.

EDUCATION—Public schools: 24 elementary, 2 junior high; 3 high schools. Parochial schools: 9 elementary, 2 high schools. Business colleges—3. College: Bradley Polytechnic Institute. Teachers in all public schools 350 to 400. Value of public school property—$6,201,209.

ELECTRIC METERS—34,000 in active service July 1, 1936.

FIRE PROTECTION — Fire Department ranks with best in cities of Peoria's size. 10 stations. 127 men. 15 pieces motorized equipment.

GAS METERS—26,500, July 1, 1936. Natural gas piped to Peoria and abundantly available.

GOLF—2 18-hole private courses. 3 18-hole municipal courses.

GRAIN MARKET—The Peoria Board of Trade, organized in 1857, one of the nation's large primary grain markets. Received nearly 25,000,000 bushels of grain in 1935, including nearly 15,000,000 bushels of corn.

HOSPITALS — 4 hospitals — 683 beds — 4 nurses training schools. Municipal Tuberculosis sanitarium, 100 beds. 1 private sanitarium. State Hospital for Insane, 2,550 inmates.

HOTELS—2,000 modern hotel rooms. Adequate convention facilities.

HOUSING—26,205 dwelling units in city limits, more than half of which are occupied by owners.

ILLINOIS RIVER—Deep waterway passes Peoria and with a modern river and rail terminal provides the city with water transportation. 89,455 tons of freight were handled in 1935. The new $2,350,000 dam and lock to be constructed 4 miles below Peoria will maintain the 9-foot navigation channel which is 100 feet wide.

INDUSTRIES—174 principal industries, with investment of $180,000,000. Annual payroll (1935) $28,000,000. Approximately 21,000 industrial employees—nearly 1,000 different products.

LITERACY—Peoria tied for first place among all cities of the nation.

LIVE STOCK MARKET—Modern stock yard, considered one of the world's largest truck-in markets, received in 1935, 406,400 hogs, 68,000 cattle, 53,400 calves, 95,100 sheep. Total business $20,000,000.

MAIL POSTAL SERVICE—Is provided by 6 railroads and two airlines. A new Federal Building will soon be under construction. 204 postal employees each day provide three deliveries for the downtown section and two for residences.

MANUFACTURED PRODUCTS—Have an annual value of 350 to 400 million dollars and include agricultural implements, alcohol and solvents; beer and liquors; brick, tile and stone; caskets; castings; chemicals; cooperage; cordage; cotton goods; fencing and wire products; food, dairy and meat products, feeds; furnaces and oil burners; harvesters and road machinery; household products; millwork; paper products; printing and lithographing; steel products; strawboard; tools and dies; tractors; transparent wrappers; threshers; and washing machines.

MOTOR BUS LINES—Of which there are 9 give daily passenger service to all midwest communities. Through lines to Chicago, St. Louis, Kansas City, Los Angeles and Indianapolis. Connections with all important lines.

MOTOR TRUCK LINES—8 trunk lines and 100 other lines. Regular service to 100 midwest cities, and direct connections to all points.

MUSIC—Many organizations and groups sponsor programs of culture. Orpheus Club, Amateur Music Association and Public School music are recognized nationally.

NEWSPAPERS — Morning daily, Peoria Transcript; evening daily, Peoria Star and Peoria Journal; Sunday, Peoria Star and Peoria Journal-Transcript.

PARKS—8 public parks with total of 1,637 acres provide all forms of recreation including swimming, scenic drives, golf, tennis and boating.

PEORIA PLAYERS — Amateur theatrical society; own fully equipped theater.

POLICE PROTECTION—Peoria police department of 121 men rated as one of country's most efficient and best equipped by United States Department of Justice. Maintains 9 two-way radio police cars.

POPULATION—1930—104,969; 93.6% native born. 1936 (est.) 112,000; metropolitan area (est.) 155,000; trading area (est.) 323,500.

POST OFFICE RECEIPTS—1935, $914,750.

POWER—Total output 1935 (residence and industrial) Greater Peoria electricity—199,394,000 kilowatt hours. Gas—939,315,000 cubic feet.

PROFESSIONS—192 attorneys; 108 dentists; 165 physicians.

PUBLIC LIBRARIES — 208,000 books; 28,470 card holders; circulation in 1935—798,191.

RADIO STATION—WMBD frequency 1,440 kilocycles, on air 18 hours each day; CBS outlet for Central Illinois.

RAILROADS—Terminal point for 14 steam and one electric railroad. Major eastern, western and southern roads serve Peoria direct, providing through rates to all territories. Alton Railroad Company; Big Four Route; Chicago, Burlington and Quincy Railroad Company; Chicago and Illinois Midland Railway Company; Chicago and Northwestern Railway Company; Illinois Central System; Illinois Terminal Railroad System; Minneapolis and St. Louis Railroad Company; Nickel Plate Road; Peoria and Pekin Union Railway Company; Pennsylvania Railroad; Peoria Terminal Company; Rock Island Lines; Santa Fe Railway Company; Toledo, Peoria and Western Railroad.

RETAIL SALES—Peoria County annually—$70,362,000. Peoria County per capita—$670.

RECREATION CENTER—Maintained by Park board. Modern in every respect.

SANITATION—Entire city's sewage disposed of through modern disposal plant.

SCHOOL ENROLLMENT—Public schools, 17,024; parochial schools, 2,513; Bradley College, 1,390.

STREET CAR AND BUS SERVICE—137 modern units give efficient service to all parts of Greater Peoria.

STREETS AND HIGHWAYS—100 miles of paved streets, including many scenic drives. National and State hard surfaced highways pass through Peoria and radiate in every direction.

SYMPHONY ORCHESTRA—40 members; founded in 1898.

TELEPHONES—24,000.

WAREHOUSE FACILITIES — Modern warehouses adequately available.

WATER METERS—Approximately 24,000.

WATER SPORTS — Boating, swimming, yachting, canoeing on Illinois River and Peoria Lake.

WATER SUPPLY — Abundance of pure water from artesian wells. Daily plant capacity 30,500,000 gallons. Mineral content 450 parts per million gallons.

PEORIA CITY MEDICAL SOCIETY

PEORIA, ILLINOIS

To All Members of the Illinois State Medical Society:

The Peoria City Medical Society extends heartiest greetings. We wish to invite you to attend the Eighty-seventh Annual Meeting of the Illinois State Medical Society which will be held in Peoria on May 18th, 19th and 20th.

Nothing has been left undone to make your visit enjoyable and profitable. The program which has been planned is outstanding and the scientific exhibits will far surpass any previous presentation.

Our Society is pledged 100% to serve you in any capacity and we look forward to your visit with anticipation. Come early and let us all make this Eighty-seventh Meeting the best of all.

Fraternally,

E. A. GARRETT, *President.*

C. W. MAGARET, *Secretary.*

Peoria City Medical Society.

INVITATION FROM COMMITTEE ON ARRANGEMENTS

The Committee on Arrangements invites each and everyone of you to be among the two thousand or more that we expect at the Annual Illinois State Medical Meeting, May 18-19-20, at Peoria.

The Pere Marquette Hotel is the official hostelry. At the Registration Booth you will obtain the Official Program, special parking privilege stickers for your automobile, a list of nearby parking places, free stag tickets and an invitation to be a guest of the "World's Largest Distillery."

The Stag which will be very interesting and unusual will be held in the Ball Room of the Pere Marquette Hotel on Tuesday, May 18, at 9:00 P. M. The Stag Chairman states that there will be nothing offensive to anyone, but any additional information is unobtainable.

Many of the luncheons and the President's Dinner on Wednesday evening in the Ball Room will be held at the Pere Marquette Hotel.

We are informed from reliable sources that the Scientific Exhibits will be better than at any time. There will be many Commercial Exhibits of unusual interest. Both the Scientific and Commercial Exhibits will be in the Pere Marquette Hotel. The Scientific sections to be held in Pere Marquette Hotel are:

Eye, Ear, Nose and Throat in Creve Coeur Room.

Radiology in Vogue Room.

Surgery in Early American Room.

Pediatrics in Vogue Room, Tuesday a. m.

Central State Society, Industrial Medicine & Surgery in Early American Room, Tuesday a. m.

Secretaries Conference in Ball Room, Tuesday a. m.

Medicine and General Sessions in Ball Room.

Public Health and Hygiene section, Jefferson Hotel.

The slogan is "See You in Peoria," and the Committee on Arrangements welcomes you.

E. C. KELLY,

General Chairman.

PRESIDENT'S DINNER

Every member of the Illinois State Medical Society present at the Annual Meeting should endeavor to attend the President's Dinner which will be held in the Ball Room of the Pere Marquette Hotel on Wednesday evening, May 19, at 7:00 o'clock. The guest of honor at this important function is Dr. Rolland Lester Green, President of the Society for the past year.

Dr. Charles B. Reed, the immediate past president, will act as toastmaster. All living past presidents are guests of the Society, and are especially urged to be present.

Dr. Philip H. Kreuscher, Chairman of the Council, will present the retiring President with the President's Certificate following the dinner service. No other speeches will be made during the evening.

Following the dinner, the President's Dance will be given with a good orchestra to furnish the music for all lovers of the Terpsichorean Art. The bridge fans will also be cared for, and prizes will be awarded to the winners.

DO NOT FORGET THE PRESIDENT'S DINNER.

VETERANS' SERVICE COMMITTEE DINNER

The annual dinner of the Veterans' Service Committee will be held in the Hotel Pere Marquette on Tuesday evening, May 18. Dr. F. O. Fredrickson, Chairman of the Committee, will

officiate as presiding officer for this event. Every physician is cordially invited to attend this dinner meeting whether an ex-service man or not, for the program will be of general interest.

Program

"The Medical Commission and Organized Medicine"—Norman L. Sheehe, M. D., Department Surgeon, Department of Illinois American Legion.

"The Organization of the Medical Service of the Army in War"—Roy C. Heflebower, Col. M. C., U. S. A. District, Illinois 6th Corps Area.

"The American Legion's Contribution to the Boys' State and Big Brother Movement"—Leonard Applequist, Senior Vice-Commander, American Legion.

Department Surgeon Norman L. Sheehe, M. D., will call a meeting of the Medical Commission immediately following the dinner program. The place of the meeting will be announced later.

THE STAG

The Peoria City Medical Society invites all physicians and their male friends to be their guests at the annual "STAG" to be held in the Hotel Pere Marquette Ball Room at 9:00 P. M., Tuesday evening, May 18th. The Committee is reluctant to give any advance information concerning the nature of the entertainment, but they state that it will be of interest to all members and guests, and that no one will be offended.

ALUMNI AND FRATERNITY LUNCHEONS

All Alumni and Fraternity luncheons will be held Wednesday noon, May 19th. Special information concerning these events will be posted on bulletin boards, and tickets will be available at the Registration headquarters, and also from members of the local committee from the Peoria City Medical Society.

Meetings of The House of Delegates

Tuesday Afternoon, May 18, 1937

3:00 First Meeting of the House of Delegates, called to order by the President, Rolland L. Green, for Reports of Officers, Councilors, Committees, appointment of Reference Committees, introduction of resolutions, and for the transaction of other business which may come before the House.

Thursday Morning, May 20, 1937

9:00 Second Meeting of the House of Delegates, called to order by the President for the Election of Officers, Councilors, Committees, Delegates and Alternates to the American Medical Association, Reports of Reference Committees, and action on same, and for the transaction of other business to come before the House.

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GENERAL SESSIONS

OPENING MEETING

Tuesday Afternoon, May 18, 1937

1:00 Eighty-seventh Annual Meeting officially opened by the President, Rolland L. Green.

1. Invocation. William Adkinson Young, 1st Presbyterian Church, Peoria.
2. Address of Welcome—Mayor of Peoria, Hon. David H. McCluggage.
3. Address of Welcome—President of the Peoria City Medical Society, E. A. Garrett.
4. Report of Chairman of the Committee on Arrangements, E. C. Kelly.
5. Adjournment for Oration in Medicine.

1:30 Oration in Medicine, "Abdominal Visceral Pain: A Physiological and Clinical Consideration" .....
..Virgil E. Simpson, Louisville, Ky.

Wednesday Morning, May 19, 1937

11:00 Oration in Surgery, "Early Treatment of Injuries of the Face and Jaws."
.....Vilray P. Blair, St. Louis, Mo.

Wednesday Afternoon, May 19, 1937

1:30 President's Address, "Self-Preservation." Rolland L. Green, President, Illinois State Medical Society, Peoria, Ill.

Thursday Morning, May 20, 1937

Induction of the President-Elect.

Immediately after the closing of the meeting of the House of Delegates, Rollo K. Packard will be inducted into the office of President of the Illinois State Medical Society by the retiring

President. All members and guests are urged to attend this interesting function.

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SECRETARIES' CONFERENCE

Donald W. Killinger, *Chairman*.....Joliet
John W. Long, *Vice-Chairman*.....Robinson
D. D. Monroe, *Secretary*.....Alton

Tuesday Morning, May 18, 1937

9:00—12:00

Call to Order and Opening Remarks.....
.....Donald W. Killinger, Chairman, Joliet

"Retrospect and Prospect".....
.....Rolland L. Green, President, Illinois State Medical Society, Peoria

"Correlation of Secretarial Duties in the State Medical Society".....
.....Harold M. Camp, Secretary, Illinois State Medical Society, Monmouth

Questions and Answers.

"How May the County Medical Society Aid in the Rendition of Township Relief".....
..... Mr. John Beineman, Oak Hill, Illinois. Chairman of the Board of Supervisors of Peoria County

Discussion opened by A. R. Brandenberger, Secretary of Vermilion County Medical Society, Danville.

"State Medicine".....John R. Neal, Chairman, Legislative Committee, Illinois State Medical Society, Springfield

"Socialized Medicine".....Robert H. Hayes, Secretary, Chicago Medical Society, Chicago

"What the Scientific Service Committee Has to Offer County Medical Societies"..Robert S. Berghoff, Chairman, Scientific Service Committee, Chicago.

Questions and Answer Period for County Society Secretaries.

Annual Election of Officers of Secretaries' Conference.

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A CONFERENCE ON DISEASES OF CHILDREN

Arthur H. Parmelee, *Chairman*.....Oak Park
Joseph K. Calvin, *Vice-Chairman*.....Chicago
Gerald M. Cline, *Secretary*.....Bloomington

Tuesday Morning, May 18, 1937

VOGUE ROOM

A SYMPOSIUM ON PNEUMONIA

9:00—"General Introduction, Etiology and Classification"...Joseph Brenneman, Chicago

Differences between Pneumonia in Childhood and in the Adult; the Etiology of Pneumonia in Childhood together with the different types of pneumonia and their chronological and clinical setting; Lobar, Bronchial, Interstitial and Lipoid.

Discussion opened by Scott Wilkinson, Decatur.

9:45—"Symptomatology and Diagnosis"....
.....W. L. Crawford, Rockford

Pneumonia in the infant. Pneumonia in the older child. Symptomatology of lobar pneumonia; of broncho-pneumonia; of mixed forms. Symptoms and diagnosis of lipoid pneumonia. Symptoms in central or masked pneumonias with late appearance of physical signs. Differential diagnosis. Illustrated with slides.

Discussion opened by Fred Maurer, Peoria.

10:30—"Complications, Sequelae and Prognosis" .....John R. Vonachen, Peoria

Difference in Complications and Sequel as related to the difference of pneumonias both as to bacteriology and pathology.

Also difference in complications and sequel following different types of pneumonia. Special reference to Complications and Sequel following staphylococcus pneumonia, and also influenzal pneumonia.

Also Lung Abscess as an oftimes unrecognized sequel. Prognosis. Recognizable types and their relationship to early diagnosis, treatment and ultimate recovery.

Discussion opened by Walter Whitaker, Quincy.

11:15—"Treatment".Joseph K. Calvin, Chicago

Prophylaxis by proper treatment of minor febrile respiratory ailments. Active therapy: Absolute rest and methods of securing it in children; Hydrotherapy for control of fever and restlessness; Isolation; Nursing care; Control of dehydration and ketosis. (Type of fluids, quantities, route of administration, etc.); Diet suitable for children; Control of Tympanites; Types of stimulation, various drugs, etc: Indication for Oxygen, Blood Transfusions, Specific Therapy; Treatment of complications as otitis media and empyema.

Discussion opened by King Woodward, Rockford.

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PEDIATRIC PAPERS BEFORE OTHER SECTIONS

Tuesday Morning, May 18, 1937

OBSTETRICS AND GYNECOLOGY

"Icterus of the Newborn".....
.....Craig D. Butler, Chicago

Tuesday Afternoon, May 18, 1937

SECTION ON MEDICINE

"Whole Suprarenal Gland—A Useful Therapeutic Agent" (Lantern Slides).....
.....Orville Barbour, Peoria

SECTION ON EYE, EAR, NOSE AND THROAT

"Round Table Discussion".....
Groups 1 and 2 discussion Middle Ear and Mastoid Diseases in Infants and Children; also Sinus Infection in Children.

SECTION ON RADIOLOGY

"Value and Limitation of Encephalography" .....Abraham Levinson, Chicago

SECTION ON PUBLIC HEALTH AND HYGIENE

"Whooping Cough Diagnosis and Prevention" .....L. Sauer, Evanston

"Poliomyelitis"...Archibald L. Hoyne, Chicago

Wednesday Morning, May 19, 1937

JOINT SESSION—SECTIONS ON MEDICINE, SURGERY AND RADIOLOGY

"Surgical Treatment of Appendicitis in Children" .....Edwin M. Miller, Chicago

"Diagnosis of Appendicitis in Children"... .....H. W. Elghammer, Chicago

SECTION ON EYE, EAR, NOSE AND THROAT

"Report on Periodic Examination of School Children".....G. Harmon Brunner, Glencoe

Wednesday Afternoon, May 19, 1937

SECTION ON MEDICINE

"Scarlet Fever and Its Complications"..... .....Eberhardt H. Quandt, Rockford

SECTION ON PUBLIC HEALTH AND HYGIENE

"Diphtheria Prevention—A Municipal Problem" .....N. C. Bullock, Rockford

SECTION ON RADIOLOGY

"Some Roentgen Considerations of the Childhood Type of Tuberculosis"...Earl E. Barth, ...Northwestern University, Chicago

Thursday Morning, May 20, 1937

JOINT SESSION—SECTIONS ON MEDICINE; SURGERY; EYE, EAR, NOSE AND THROAT; PUBLIC HEALTH AND HYGIENE; RADIOLOGY

"The Fundamentals of Serum Therapy".... .....Winston H. Tucker, Springfield

"Human Convalescent Serum and Its Application to Acute Infectious Diseases"..... .....Sidney O. Levison, Chicago

"The Control of Rabies"..... .....Maurice L. Blatt, Chicago

OBSTETRICIANS AND GYNECOLOGISTS' MEETING

Ralph A. Reis.....*Chairman*
Floyd L. Heinemeyer.....*Secretary*

Tuesday Morning, May 18, 1937

9:00—"Diagnosis and Treatment of Occiput Posterior Position"...William Cooley, Peoria

Occiput posterior position occurs more frequently than was formerly thought. Early diagnosis is important in order to institute proper treatment as soon as possible.

Discussion opened by Thomas Bell Williamson, Mt. Vernon.

9:30—"Treatment of Non-Convulsive Toxemia".....William Dieckmann, Chicago

The importance of the various symptoms and signs of toxemia will be discussed. The treatment used for the ambulatory cases of toxemia and also for those who are hospitalized will be discussed.

Discussion opened by Wm. A. Michael, Peoria.

10:00—"Endometriosis" ....Fred O. Priest, Chicago

Endometriosis, though relatively recently brought to our attention, is now recognized as one of the common new growths. It demands the consideration of each of us who does surgery in the female abdomen or pelvis, or treats conditions dealing with its physiology.

The typical symptomatology plus the characteristic puckering of these growths, where palpable, aid greatly in making the diagnosis. The choice of treatment must depend upon the age of the patient and location and extensiveness of the growth.

Discussion opened by George W. Stephenson, Bloomington.

10:30—"Maternal Welfare Committee Report."..... .....Fred H. Falls, Chicago

This report will cover the relationship of the Illinois State Department of Public Health and the Childrens Bureau; the advisory function of the American Committee on Maternal Welfare; the relationship of the Illinois State Medical Society through its program committee; the activities of the Department of Obstetrics of the University of Illinois, and other Medical Colleges in Chicago; the organization of Refresher courses throughout the state; the proposed summer courses at the University of Illinois; the co-operative activities of lay organizations, such as the Federation of Womens Clubs, Visiting Nurses Associations, Parent Teachers Association and the University of Illinois Extension Division. This discussion will be supplemented by an exhibit in the scientific exhibit section setting forth these facts graphically.

10:40—"Third Stage of Labor"..... .....Holland Williamson, Danville

This paper discusses the management, mechanism and characteristics of the third stage of labor in the normal case, in caesarean section and in premature separation of the placenta The use of ergot alkaloids are discussed in their relation to the third stage. A case of retained placenta is reviewed in which placenta accreta was considered. Gentleness is the theme throughout in the management of the third stage of labor.

Discussion opened by Chester C. Doherty, Chicago.

11:10—Icterus of the Newborn".....
.....Craig D. Butler, Chicago

An attempt is made to correlate the various theories offered to explain the occurrence of icterus neonatorum and icterus gravis. The incidence of icterus in three-thousand newborns observed at Cook County Hospital is reported and discussed in its relation to other factors.

Discussion opened by Carl E. Sibilsky, Peoria.

11:40—"Improved Post-Operative Care"....
.....W. C. Bornemeier, Chicago

Comparing post-operative management of abdominal surgery of 1910 with that of 1930 suggested to E. M. Heacock, M. D., F. A. C. S. and the author, that there might still be room for improvement. By the simple method of withholding fluids by mouth for thirty-six to seventy-two hours and giving sizable amounts of morphine, we have reduced post-operative vomiting nearly one hundred per cent., almost eliminated post-operative distention and reduced the average hospital stay from sixteen days to eleven days.

Discussion opened by D. D. Smith, Decatur.

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WOMEN PHYSICIANS' ACTIVITIES

Programs of special interest have been arranged for the Visiting Women Physicians at the Illinois State Medical Society Meeting.

Tuesday Morning, May 18, 1937

9:00—Registration at the Hotel Pere Marquette. Breakfast at the Hotel Pere Marquette. Business meeting of the Illinois Branch of the National Medical Women's Association.

10:00 The Illinois Branch of the National Medical Women's Association will meet with the Obstetrical section.

Tuesday Evening, May 18, 1937

6:30 Twilight drives over the Bluffs and through Grand View Drive.

7:00 Dinner at the Peoria Country Club.

Address by Dr. Mary G. Schroeder, Elgin, "Psychiatry as a Specialty for Women Physicians."

Musical in the lounge following the address.

Dr. Margaret Meloy of Peoria is in charge of local arrangements for the Women Physicians' special meetings.

CENTRAL STATES SOCIETY OF INDUSTRIAL MEDICINE & SURGERY

George W. Staben, *President*.....Springfield
Frederick W. Slobe, *Vice-President*....Chicago
Frank P. Hammond, *Secretary-Treasurer*....
.....Chicago

Annual Meeting, Peoria

Tuesday Morning, May 18, 1937

James H. Finch, *Program Chairman*.....
.....Champaign
Arthur H. Conley, *Co-Chairman*.....Chicago

9:00 to 12:30

"Treatment of Wounds".....
.....Darwin Kirby, Champaign
"Injuries to the Intervertebral Disc—Roentgen Study".....Harry A. Olin, Chicago
"The Economic Aspect of Abdominal Drainage".....J. B. Moore, Benton
"Malpractice in Relation to Industrial Surgery".....Mr. Edward W. Rawlins, Chicago
Arthur H. Conley, Chicago. Discussion.
"Medical Problems of the Industrial Commission".....Philip H. Kreuscher, Chicago

Tuesday Afternoon, May 18, 1937

2:30 to 5:00 In conjunction with Surgical Section of the Illinois State Medical Society.

"Pellegrini—Stieda's Disease," .....
.....Ralph M. Carter, Green Bay, Wis.
"Operation—Neck of the Femur." Movie Demonstration.....James J. Callahan, Chicago

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ILLINOIS STATE MEDICAL SOCIETY

Eighty-Seventh Annual Meeting

PEORIA, ILLINOIS

May 18, 19, 20, 1937

WOMAN'S AUXILIARY TO THE ILLINOIS STATE MEDICAL SOCIETY

Officers

President, Mrs. F. P. Hammond.....Chicago
President-Elect, Mrs. H. B. Henkel..Springfield
First Vice-President, Mrs. E. J. Berkheiser..
.....Chicago
Second Vice-President, Mrs. I. L. Foulon....
.....East St. Louis
Third Vice-President, Mrs. A. H. Brumback..
.....Chicago
Treasurer, Mrs. William Raim.....Chicago
Corresponding Secretary, Mrs. Frank Alford..
.....Crystal Lake
Recording Secretary, Mrs. A. H. Baugher....
.....Chicago

Councilors

Mrs. Imas Rice, Aurora, Ill.....1st Dist.
Mrs. R. E. Davies, Spring Valley, Ill...2nd Dist.
Mrs. Lucius Cole, River Forest, Ill.....3rd Dist.

Mrs. E. J. Meyer, Chicago, Ill.....3rd Dist.
Mrs. Carl A. Hedberg, Chicago, Ill.....3rd Dist.
Mrs. F. E. Bollaert, East Moline, Ill...4th Dist.
Mrs. J. E. Reisch, Springfield, Ill.....5th Dist.
6th Dist.
Mrs. T. D. Laney, Salem, Ill.....7th Dist.
Mrs. E. F. Allen, Arcola, Ill.....8th Dist.
Mrs. E. W. Burroughs, Harrisburg, Ill.9th Dist.
Mrs. R. F. Stanton, E. St. Louis, Ill..10th Dist.
Mrs. E. R. Steen, Joliet, Ill.....11th Dist.

CHAIRMEN OF STANDING COMMITTEES

Organization, Mrs. H. B. Henkel....Springfield
Press & Publicity, Mrs. V. M. Seron.....Joliet
Legislation, Mrs. W. D. Chapman.....Silvis
Printing, Mrs. H. M. Camp.....Monmouth
Program, Mrs. A. B. Middleton.....Pontiac
Revisions, Mrs. R. K. Packard.....Chicago
Public Relations, Mrs. J. A. Wolfer....Chicago
Hygeia, Mrs. M. L. Hole.....Danville
Finance, Mrs. F. O. Frederickson.....Chicago
Archives, Mrs. John Soukup .....Chicago
Hostess, Mrs. A. H. Brumback.....Chicago
Credentials & Registration, Mrs. I. L. Foulon
.....East St. Louis
Convention, Mrs. Milo Easton.....Peoria

CHAIRMEN OF ANNUAL MEETING COMMITTEES
PEORIA AUXILIARY

Credentials, Registration.....Mrs. J. E. Bellas
Mrs. M. G. Bohrod
Hospitality .....Mrs. Perry B. Goodwin
Mrs. L. A. Burhans
Luncheon, Public Relations.....
.....Mrs. W. H. Holbrock
President's Luncheon.....Mrs. W. A. Hinckle
Mrs. E. P. Coleman
Bridge Dinner.....Mrs. F. M. F. Meixner
Mrs. E. C. Kelly
Mrs. A. D. Phillips
Mrs. R. A. Hanna
Dinner Dance.....Mrs. W. C. Williams
Mrs. Robert M. Sutton
Mrs. Clifton S. Turner
Tea, Country Club.....Mrs. John R. Vonachen
Mrs. Harry Durkin
Transportation .....Mrs. Wilbur L. Bowen
Miss Mary Knapp
Hygeia.....Mrs. James A. Walsh
Board Breakfast.....Mrs. Fred H. Decker
Publicity.....Mrs. C. G. Farnum

WOMAN'S AUXILIARY PROGRAM

All physicians' wives are urged and cordially invited to attend all general sessions of the Auxiliary and their luncheons, dinners, tea, and tours.

Tuesday Morning, May 18, 1937

8:30 Registration at Headquarters, Jefferson Hotel. All business sessions to be held in the Ball Room of the Jefferson Hotel.
10:00 Board Meeting.
11:30 Conference of County Presidents and members with the President-Elect and the following State Chairmen: Legislation, Hygeia, Public Relations and Organization.
12:00 Luncheon—Creve Coeur Club. Mrs. Frank P. Hammond, President of the State Auxiliary, presiding.
Address—Mrs. Robert Fitzgerald.

Tuesday Afternoon, May 18, 1937

2:00 General Session for all physicians' wives, Jefferson Hotel.
Invocation.
Address of Welcome — Mrs. Milo T. Easton, Convention Chairman.
Response—Mrs. Harry J. Dooley.
4:00—6:00
Tea and Musical—Peoria Country Club.
Violinist—Mrs. Harry Lloyd
Soloist—Mrs. Gilbert Geiger
Accompanist—Mrs. Harry A. Durkin
Soloist on Piano—Master Harry A. Durkin.
7:00 Dinner Bridge at the Jefferson Hotel.
Mrs. F. M. Meixner, Chairman.
Mrs. E. C. Kelly
Mrs. R. A. Hanna
Mrs. A. D. Phillips

Wednesday, May 19, 1937

8:00 Breakfast for Board Members only. Jefferson Hotel.
9:30 Business Session. Jefferson Hotel.

Wednesday Afternoon, May 19, 1937

1:00 President's Luncheon, Jefferson Hotel.
Guests of honor—All Past-Presidents.
Introduction of the incoming President, Mrs. H. B. Henkel.
Also of Councilors, the newly elected officers, of the Woman's Auxiliary to the Illinois State Medical Society.
Address by Frank J. Jirka, Director,

Illinois Department of Public Health.

3:30 Tour and trip through the Hiram Walker Distillery.

Wednesday Evening, May 19, 1937

6:30 President's Dinner and Dance — Ball room of the Pere Marquette Hotel.

Before 3:00 P. M. all visitors must be registered for the trip to the Country Club and Hiram Walker Distillery. Cars leave the Liberty Street side of the Jefferson Hotel promptly at 3:30 each day. Please register at the INFORMATION DESK either at the Jefferson or the Pere Marquette Hotels.

Peoria's hostesses will be found in the lobby of both hotels.

Thursday Morning, May 20, 1937

8:00 Board Breakfast—Guests of Mrs. F. P. Hammond, President of the Auxiliary.

9:30 Post Convention Board Meeting—Mrs. H. B. Henkel presiding. Jefferson Hotel.

SOCIAL FUNCTIONS FOR ALL LADIES

Tuesday, May 18, 1937

12:00 Noon Luncheon—Creve Coeur Club.

4:00 to 6:00 Tea and Musical at the Peoria Country Club.

7:00 Bridge Dinner at the Jefferson Hotel.

Wednesday, May 19, 1937

1:00 Luncheon at the Jefferson Hotel.

4:00 Trip through Hiram Walker Distillery.

6:30 President's Dinner and Dance. Cards. Pere Marquette Hotel.

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SECTION PROGRAMS

SECTION ON MEDICINE

James G. Carr.....*Chairman*
Cecil Jack .....*Secretary*

Tuesday Afternoon, May 18, 1937

Hotel Pere Marquette Ball Room

2:30—"Heart Disease Complicated by Pregnancy".....

Gertrude M. Engbring, Don C. Sutton, Chicago

A study of 1400 women who have been referred to the Heart Clinic from the Prenatal Clinic because of some cardiac abnormality.

The diagnosis of heart disease during pregnancy is discussed.

The course of heart disease during pregnancy, labor and the postnatal periods have been studied, often several times in the same patient.

A comparison is made of the prognosis of women who have borne children with those who have not.

The care of the cardiac patient during pregnancy and labor is discussed.

Discussion opened by James E. Fitzgerald, *Chicago.*

3:00—"Whole Suprarenal Gland—A Useful Therapeutic Agent" (Lantern Slides).....Orville Barbour, Peoria

A report of seven years experience with the oral administration of whole suprarenal gland in certain clinical disorders of infants and children. Several hundred cases were studied. The results disprove the prevalent impression that this glandular substance is ineffective when given by mouth. Its effects upon various disorders are described according to their anatomical origin. The results obtained depend upon the potency of the products used. Contraindications and untoward reactions are pointed out.

Discussion opened by James W. Sours and James T. Jenkins, Peoria.

3:30—"Clinical Problems in Diabetes".....Robert W. Keeton, Chicago

The purpose of the discussion is to consider the management of some clinical problems presented by diabetics.

1. The layman hopes for a cure for diabetes. Until he is educated he is not content to accept a plan which promises only control.

2. The primary object of diet planning is to secure a diet, adequate in all respects, adapted to the patient's needs, and easily procurable. It should not differ materially from one eaten by his associates.

3. All diabetics even though they have only mild cases should be so trained that the institution of insulin is possible at any time.

4. Many cases show polyneuritis; diarrhea, irritable bowel; urinary fecal incontinence and painful extremities. Their management is discussed.

Discussion opened by George W. Parker, Peoria.

4:00—"Metaphen Intravenously in the Treatment of Tularemia".....F. L. Barthelme, Effingham

Discussion opened by Samuel E. Munson, Springfield.

4:30—"Dangers of Rapid Diuresis in the Cardio-Renal Vascular Patient".....M. Herbert Barker, Chicago

Patients with long standing severe congestive heart failure have variable degrees of reduced renal function. Modern methods of careful ionic diets, remineralization and mercurial duretics result in a rapid diuresis in most instances. The clearing of waste products such as urea, phosphates and other acids lag behind the clearance of water. This results in their great concentration causing a severe acidosis, uremia and death. The need for caution and frequent changes of the dietetic and therapeutic control of this type of patient is to be discussed.

Discussion opened by Harry A. Durkin, Peoria.

Wednesday Morning, May 19, 1937

Ball Room

Joint Session with Sections on Surgery and Radiology

Symposium on Appendicitis

1. "Surgical Treatment of Appendicitis in Children".....Edwin M. Miller and .....Edgar Turner, Chicago

A careful clinical study of five hundred cases of acute appendicitis at the Children's Ward of the Cook County Hospital during the past three years warrants the following conclusions as to the methods of treatment:

In all cases of acute appendicitis before the stage of perforation, immediate appendectomy is indicated. Those cases consulting the surgeon a week or ten days after the onset of perforation at a time when a localized inflammatory mass can be felt on examination, had best be treated conservatively. It is only the exceptional case in this group that will need surgical drainage. All cases presenting evidence of spreading peritonitis without clinical manifestations of localization had best be given the benefit of appendectomy no matter what the duration of time since the perforation occurred.

2. "Difficulties in Diagnosis of Appendicitis" .....Darwin Kirby, Champaign

The difficulty in profiting from the mistakes of others. The role of villain which the urinary tract presents in diagnosis. Confusing picture often presented by pelvic infection. Importance of referred pain. White blood counts and differential with special reference to Shilling count as aid in difficult decisions. Importance of history, especially time element. Illustrative cases and cross section of surgical opinion from recent literature.

3. "The Radiological Appendix"..... George M. Landau, Robert A. Arens, Chicago

The appendix, from the radiological viewpoint, will be considered. The radiological examination is often of extreme help in the determination and accurate localization of pain points to the appendix, regardless of position, which may vary considerably, having been found deep in the pelvis, in the midline, and up to the upper right quadrant in the gall bladder area. Roentgenoscopy permits of accurate localization and association of the appendix with pain points. Terminal illeitis can also be easily differentiated. The size, shape, location and variations will be considered.

4. "Diagnosis of Appendicitis in Children" .....H. W. Elghammer, Chicago

Abdominal pains and gastro intestinal upsets are extremely common during childhood.

Acute appendicitis presents one of the most difficult problems, we encounter among children.

The history of onset and the sequence of symptoms are of great importance.

The approach and technic of physical examination requires special consideration.

Positive and negative findings; associated pathology and differential diagnosis.

5. "Diagnostic Difficulties in Appendicitis" .....LeRoy H. Sloan, Chicago

The five cardinal symptoms of typical acute appendicitis, the progress of these typical signs and symptoms, and the two absolute essentials in diagnosis of acute appendicitis, variations in the progress of difficulties in diagnosis and differential diagnosis, certain specific diagnostic difficulties in connection with more obscure diseases are discussed. Also there is some discussion of surgical complications for which the internist is called.

6. "Post-Operative Complications of Acute Appendicitis and Their Treatment"..... .....Ciney Rich, Decatur

The postoperative complications of acute appendicitis and their subsequent treatment, depends to a large extent upon the stage of the disease with which one is dealing. Thus complications are most rare when the operation has been performed in the first thirty-six or forty-eight hours. They are more numerous and grave during the intermediate period extending from the second to the sixth day. Cases living to come to later operation, usually have developed immunological response and some localization of their peritoneal infection.

The commoner complications to be discussed are: peritonitis (local and generalized), ileus, secondary abscess, chest complications, phlebitis, pyemia, fecal fistula, intestinal obstruction, adhesions, and ventral hernia.

The treatment of these complications is usually surgical, and the earlier treatment is instituted following diagnosis, the better are the patient's chances for recovery.

Wednesday Afternoon, May 19, 1937

Ball Room

2:30—Chairman's Address — "Prognosis in Cardiac Disease"....James G. Carr, Evanston

2:50—"Scarlet Fever and Its Complications" .....Eberhardt H. Quandt, Rockford

In a statistical study of 783 school children, one year after having had scarlet fever, the order of frequency of acute complications was determined as well as the presence of chronic lesions in the middle ear, heart, the central nervous system, etc. Twenty-four per cent of all cases were found to have developed one or more complications of which otitis media was the most frequent. It was of interest, for example, to find that 65 per cent of the middle ear complications occurred between the ages of 6 to 10. In this relatively severe epidemic the incidence of scarlet fever for the total school population was 5.2 per cent with the lowest incidence in the school with the highest percentage of immune children prior to the epidemic.

Discussion opened by Scott J. Wilkinson, Decatur.

3:10—"Malaria with Special Reference to Narcotism" .....
Italo F. Volini, William W. Shapiro, Chicago

This study includes one hundred fifteen malaria patients. Sixty per cent were men.

Narcotic addiction, especially to heroin, is present in thirty-three per cent. It is most frequent in young men, especially of the colored race. The presence of malaria in the colored in Chicago is strongly suggestive of narcotism.

The parasites chiefly responsible for malaria were the tertian and aestivo-autumnal; the latter is foreign to the Chicago region, is usually seen in drug addicts, and produces a malaria having a great morbidity.

A suggestion is offered to explain the rising incidence of malaria in narcotic addicts.

Discussion opened by Edward J. Wheatley, Danville.

3:30—"Myxedema Heart" .....
.....V. Thomas Austin, Urbana

The syndrome of "Myxedema Heart" is discussed with special reference to the infrequency of associated congestive failure. Controversy over this feature may be based on lack of uniformity of acceptance of criteria of congestive failure as compared to manifestations of myxedema per se. A case of severe myxedema is presented in which marked enlargement of the heart with typical electrocardiographic changes returned to normal under thyroid medication. The association of paroxysmal tachycardia and auricular fibrillation with vascular collapse prior to treatment without evident coronary changes or other organic heart disease, presents a possible unusual complication of "Myxedema Heart."

Discussion opened by Frank Deneen, Bloomington.

3:50—"The Treatment of Hypogenitalism in the Male".....W. O. Thompson, N. J. Heckel, P. K. Thompson, Chicago

In the course of treating a large number of boys and men for undescended testes and hypogenitalism with an anteriorpituitary-like principle, the following facts were demonstrated:

1. Descent of the testes was produced in only 20 per cent.
2. Treatment with this material produced an increase in the size of the parts involved.
3. In some boys the increase in the size of the genitalia was very marked, so that a premature puberty was induced. This is one of the most serious problems involved in the treatment.
4. The increase in size was variable, dependent upon the age.

Discussion opened by Frank A. Norris, Jacksonville.

4:10—"Pulmonary Changes in Rheumatic Fever" .....Perry P. Melnick, Decatur

In acute rheumatic fever the lungs at autopsy have a characteristic gross appearance, often called "rheumatic pneumonis." A histologic study of the lungs was made in ten cases of rheumatic endocarditis with only verrucous eruptions and no valvular deformities. The microscopic findings consists essentially of an intense interstitial edema and hyperemia, more intense than can be explained on the basis of passive congestion alone. While not a specific pneumonia, the lung changes in rheumatic fever may be part of the allergic picture seen in this disease.

Discussion opened by Leon Unger, Chicago.

Thursday Morning, May 20, 1937

Ball Room

Joint Session with Sections on Surgery; Eye, Ear, Nose and Throat; Public Health and Hygiene; and Radiology

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SYMPOSIUM ON ACUTE INFECTIOUS DISEASES

9:00—"Infections of the Upper Lip".....
.....Norman Elliott, Bloomington

This paper is to review the anatomy of the upper lip and the reason for the severity of infections of the upper lip.

Also a plea for increased interest in the profession to acquaint the laity with the dangers of any manipulation of any infection of the upper lip, no matter how slight.

Also to stress the conservative treatment of infections of the upper lip in the early stages.

9:15—"Acute Infections About the Jaws"...
.....F. W. Merrifield, Chicago

Acute infections about the jaws are common sequellae to inflammation of peridental tissues, which extends to the adjacent periosteum and soft tissues.

The chief causal factor in these conditions is death and infection of the tooth pulp, either as a result of neglected dental caries or trauma.

As a general rule, acute alveolar—dental abscess, will respond to the usual dental treatment. However, as a result of trauma, particularly from ill-advised extraction, a severe infection with involvement of the soft tissues and bone may end disastrously, if not fatally, to the patient.

Because of the serious nature of these infections it seems advisable to treat even the simplest inflammation of dental origin with respect.

To present observations on these cases will be the object of this paper.

9:30—"The Fundamentals of Serum Therapy".....Winston H. Tucker, Springfield

A review is presented of the disease conditions in which serum therapy has been found to be of value. The various types of animal sera and human convalescents' sera are considered, with a discussion of time and routes of administration of each. The value of serum for prophylactic use in certain conditions is touched upon. When serum of any sort is employed,

the physician must be certain that the patient has not been previously sensitized to serum protein, in order to eliminate untoward reactions. This can be determined by a simple skin test, which may be followed by desensitization when such a procedure is indicated.

Discussion opened by George L. Drennan, Jacksonville.

9:45—"Human Convalescent Serum Treatment in Surgical Infections Due to Streptococcus Hemolyticus"..... .....Samuel L.Goldberg, Chicago

Pooled scarlet fever convalescent serum has been used in acute surgical infections due to the hemolytic streptococcus. This is a presentation of case reports of these infections treated with convalescent serum, and a discussion of the practical and theoretical considerations governing this form of therapy.

10:00—"The Quantitative Aspects of Biologic Therapy".....Paul S. Rhoads, Evanston

Unless one constantly bears in mind the quantitative nature of immunity he is apt to make mistakes in biologic therapy. Examples of such mistakes will be cited. Data collected from the literature on more than 2,000 cases of tetanus developing after the administration of tetanus antitoxin will be cited. The quantitative aspects of the various preparations used in active and passive immunization against scarlet fever and diphtheria will be discussed. Brief mention of pertussis prophylaxis and specific therapy of lobar pneumonia will be made.

10:15—"Type-specific Antipneumococcus Serum Therapy".....W. D. Sutcliff, Chicago

The therapeutic tests with type-specific antipneumococcus serum have been conducted in a more careful and thorough manner than has been the case with any previous therapeutic serum. Data will be presented today that give an adequate description of the effect of therapy on the clinical course and the mortality of the disease in America, in England, in hospitals, and in private practice in the home. Intravenous administration of adequate amounts of potent preparations of pneumococcus antibody solutions to patients in the early days of the infection will be shown to be the secret of success. Means of avoiding the dangers inherent in intravenous administration will be described. Comparisons will be made which show that the results of the efficient administration of type-specific antipneumococcic serum are comparable to those following the efficient administration of diphtheria antitoxin. Progress is constantly being made, and it now appears likely that type-specific therapy will be used as advantageously in pneumonia due to types II, 5, 7, and 8, as it can be used in pneumonias due to type I pneumococci.

10:30—"Human Convalescent Serum and Its Application to Acute Infectious Diseases" .....Sidney O. Levinson, Elizabeth Penruddocke, A. B., Albert M. Wolf, Chicago

Human convalescent serum has been prepared at the Serum Center and the results of its use followed for over six years. Certain principles must be maintained in the technique of preparing human convalescent serum to insure a safe and effective product.

Splendid cooperation by many physicians reporting results on the use of serum and personal observation of many patients have been the means of establishing criteria of dosages and route of administration. Human convalescent serums have been employed extensively and effectively in the treatment of poliomyelitis, the prophylaxis and treatment of scarlet fever and in the prophylaxis of measles. Limited observations have been made of the application of human convalescent serum in other acute infectious diseases. The results have been analyzed and tabulated.

10:45—"Roentgen Therapy in Inflammatory and Infectious Lesions"..... .....B. C. Cushway, R. J. Maier, Chicago

This presentation includes a discussion of the theories of the biological action of x-rays in inflammation and infection; dosage correlated with the accepted theories; and a report of a series of all types of infection and inflammation treated by roentgen rays.

11:00—"The Control of Rabies"..... .....Maurice L. Blattt, Chicago

Spot maps will be presented showing the location by counties of positive dog heads, of dog bites and of human rabies in the state of Illinois for 1936. An outline of the method advocated for the elimination of rabies will be presented. An outline of the treatment of dog bites will be shown on slides. A hundred feet of 16 mm. movie of a child with violent rabies will be shown.

Discussion opened by Maurice Schneider, Chicago.

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SECTION ON SURGERY

C. Paul White.....*Chairman*
Sumner Koch .....*Secretary*

Tuesday Afternoon, May 18, 1937

Early American Room

TREATMENT OF INJURIES

2:30—"The Immediate Treatment of Injuries of the Spinal Cord"...Loyal Davis, Chicago

Injuries to the spinal column in which the spinal cord escapes damage present a quite different problem and permit simpler therapeutic measures to be used than those in which the cord and nerve roots are involved. Prompt recognition of the problem with rational and conservative methods of treatment can accomplish much under the latter circumstances.

The mechanism and nature of fracture dislocations of the spinal column; the relative size of the spinal cord; the vertebral canal; and the buffer role of the cerebrospinal fluid are important basic factors. The immediate clinical signs of spinal cord injury with practical and simple methods for diagnosing the level of the injury and the value of spinal manometric examinations are discussed. The importance of immediate first aid treatment and the indications for and against operative intervention are emphasized.

2:50—"The Immediate Treatment of Compound Injuries"..Michael L. Mason, Chicago

In the management of the open wound, every effort should be made to promote healing and functional recovery. Chemical and mechanical damage must be avoided since they retard repair and favor infection. The wound, seen within four to six hours, should be carefully cleansed with soap and water, devitalized tissues excised, deep structures repaired, and the skin defect closed by primary suture or skin graft. Following this, the part should be put at rest until healing has taken place.

3:10—"Operative Treatment of Fractures of the Neck of the Femur." Moving Picture Demonstration.....J. J. Callahan, Oak Park

The essayist will show an instrument by which a flange may be used to correct fractured necks of the femur in an accurate and relatively simple manner. He will also demonstrate a new incision which is practically bloodless and yet affords an excellent view of the injury to the femoral neck.

The types of fractures occurring in the femoral neck will be discussed, as well as perforations of the capsule by either the proximal or the distal fragment in such a manner as to prevent reduction of the fracture. He will also describe a definite interposition of the periosteum and synovia between the fragments of femoral neck fractures.

3:30—"Electrical Shock Burns and Glare Injuries of the Eyes"...Hart E. Fisher, Chicago

The subject to be given is for the purpose of dispelling the misinformation that the public has received relative to the hazards of electric current, the remote effects of electrification of persons, that being electrified by high tension currents resuscitation is futile, confusion regarding scientific burn therapy and eye conditions resulting from glare of electric flashes.

The prevention treatment has proven most successful in the author's twenty-five years experience in this field.

General Discussion.

3:50—(Title will be announced later).....
.....Ralph M. Carter, Green Bay, Wisconsin

4:10—"Growth Deformities Resulting from Osteomyelitis".....John A. Siegling, Chicago

Skeletal deformities in osteomyelitis due to disturbances of epiphyseal cartilage growth are more frequent than is commonly considered to be the case. Total arrest of growth from an epiphyseal cartilage may result in angular deformity of the extremity. The amount of shortening or deformity depends upon the rate of growth of the epiphyseal cartilage involved and upon the age of the child at the time of growth arrest. The destruction of epiphyseal cartilage disc may be due to direct extension of pyogenic infection into it, to interference with blood supply of adjacent bone, or occasionally to trauma of inadvisable or too extensive surgical procedures. Overgrowth of the lone bone due to the presence of a chronic low grade infection in the juxtaepiphyseal region occasionally occurs but does not commonly produce a marked length inequality or deformity. Early recognition of the presence of arrested growth and prevention of deformity are stressed. Correction of deformities and length inequalities resulting from osteomyelitis are discussed.

Wednesday Morning, May 19, 1937

BALL ROOM

Joint Session with Sections on Medicine, and Radiology

SYMPOSIUM ON APPENDICITIS

1. "Surgical Treatment of Appendicitis in Children" .....
Edwin M. Miller and Edgar Turner, Chicago
2. "Difficulties in Diagnosis of Appendicitis"
.....Darwin Kirby, Champaign
3. "The Radiological Appendix".....
George M. Landau and Robert A. Arens, Chicago.
4. "Diagnosis of Appendicitis in Children"
.....H. W. Elghammer, Chicago
5. "Diagnostic Difficulties in Appendicitis"
.....LeRoy H. Sloan, Chicago
6. "Post-Operative Complications of Acute Appendicitis and Their Treatment".....
.....Cliney Rich, Decatur

(For abstracts of papers, see Section on Medicine.)

Wednesday Afternoon, May 19, 1937

Early American Room

2:30—"Bile Peritonitis with Case Report"...
.....R. E. L. Gunning, Galesburg

About forty-five cases of bile peritonitis without perforation of the gall bladder, ducts, or liver have been reported in the literature. The first case has been reported by Clairmont and Von Haberer in 1910; the most recent by L. B. Johnston in 1936. Most of the cases reported have presented a clinical picture of appendicitis and have been operated as such. Idiopathic bile peritonitis presents certain physiological changes unlike other forms of peritonitis. Permeability of the walls of the arterioles and venules due to the action of bile resulting in a diffusion of plasma from the circulation into the peritoneum is the basis for the clinical findings. E. Andrews, University of Chicago, 1936. Accompanying this condition of excessive collection of bile fluid in the abdomen is a condition of surgical shock due to shunting of the plasma from the peripheral circulation into the peritoneum. Analysis of all cases of bile peritonitis, particularly those reported by S. H. Mentzer, San Francisco, California 1934, indicates surgical drainage as the ideal treatment for such a condition. In all cases where drainage has been established and fluid balance instituted to replace the loss of blood plasma, recovery has been effected. The tendency tot deviate from the older principle of

drainage for all abdominal conditions should not be adhered to in these cases of the bile peritonitis. Prompt, effective drainage is indicated.

2:50—"The Correction of Deformities by the Equalization of Leg Length." Methods and Results .....Paul H. Harmon, Chicago

The conditions which lead to unequal leg length are enumerated. The mechanism underlying the result and decrease in leg length is suggested in each case.

There are three methods which can be used to equalize the lengths of legs. One, epiphyseo-diaphyseal fusion in the sound extremity can be applied only during the period of rapid pre-adolescent growth, i. e., roughly 9 to 14 years. This method must be applied in relation to the expected amount of longitudinal growth in the diseased limb as well as upon racial and family expectancy. One or more epiphyses can be closed depending upon the amount of equalization to be obtained. The other two methods: lengthening the short diseased leg by excision of a portion of the diaphysis or shortening the long well leg can be accomplished at any period but preferably should be done after adolescence so that an estimation can be made of the total amount of desired permanent alteration.

3:10—"The Surgical Pathology of Tumors of the Breast".....R. B. Malcolm, Chicago

The discussion of tumors of the breast in this paper will be based upon some 200 such tumors which have been observed and diagnosed pathologically at the Research Hospital. The prevalent type is fibro-adenoma, composing approximately 60%, the remaining 40% are carcinomata showing every variety. The major portion of the time will be consumed by the discussion of the pathological entities of carcinoma showing histological slides and the methods of spread of the disease.

3:30—"X-Ray Therapy in Cancer of the Breast".....James T. Case, Chicago

A brief story of the development of radiation therapy of the breast to its present refinement.

Application of the Coutard principle to radiation therapy of breast cancer.

Summary of technic and results.

Critique of reports in the literature.

3:50—"A General Consideration of the Treatment of Cancer of the Breast".....
.....Alexander Brunschwig, Chicago

A number of years ago it appeared to be generally accepted that the radical operation was the treatment of choice for carcinoma of the breast. In recent years great advances have been made in irradiation therapy. Its employment has been considerably extended in the treatment of various forms of cancer, including operable cancer of the breast.

A few surgeons now appear to be more conservative in the operative treatment of carcinoma of the breast, feeling presumably that adequate post-operative irradiation is capable of affording the patient as good a chance for cure as offered by the radical operation. In the essayists opinion this view is unjustified. Radical mastectomy with removal of the axillary contents, pectoral muscles and breast, en masse, should still be regarded as the best method, by far, for the treatment of operable cancer of the breast. Points of operative technique and the limitations of irradiation therapy in cancer of the breast will be discussed.

Thursday Morning, May 20, 1937

BALLROOM

Joint Session with Sections on Medicine; Eye, Ear, Nose and Throat; Public Health and Hygiene; and Radiology

(For program, see Medical Section.)

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SECTION ON EYE, EAR, NOSE AND THROAT

John A. Cavanaugh.....*Chairman*
Charles B. Voigt.....*Secretary*

Tuesday Morning, May 18, 1937

CREVE COEUR ROOM

9:30—"Stabilization of the Temporomandibular Joint".....L. W. Schultz, Chicago

Various treatments for uncomfortable, weak, dislocating, loose, clicking, grating joints have been tried and found wanting. The stabilization of such joints is no longer problematical. A simple method now stops the symptoms of an aggravating traumatic arthritis of this type.

10:00—"The Oculist and Refraction".....
.....Edwin R. Lescher, Chicago

This problem of the gradual taking over of our tonsillectomies and throat work by the general man and the danger of losing our refraction business to the optometrist, optician, and department stores, and a plea to the Eye, Ear, Nose and Throat man to put his refraction equipment and methods on a par with them. A discussion on retinoscopy without cyclopegia, practical because of the united optometric propaganda against the use of "drops."

Discussion opened by W. F. Lamkin, Champaign.

10:30—"Bronchoscopy in Bronchial Asthma"
.....Albert H. Andrews, Jr., Chicago

The development of the role of bronchoscopy is a most interesting subject as it unfolds in the literature. We first find bronchoscopy used in an occasional case by brave clinicians, then used in patients who did not respond to the usual methods of therapy, and today we find descriptions of the types of bronchial asthma which will respond well to bronchoscopic therapy. This subject is intensely practical for it gives a method of effective treatment to a frequently refractive type of asthma, as well as making diagnosis more accurate and supplying the allergist with better vaccines.

The bronchoscopic examination is made for three purposes:

1. Diagnosis.
2. Collection of secretion for vaccine.
3. Therapeutic effect.

The mechanism of relief by bronchoscopy and the indications for therapeutic bronchoscopy in relation to other therapeutic measures are discussed. Over two hundred cases from the literature are analyzed statistically and the summaries presented. A classification of bronchial asthma according to the bronchial pathology and its practical application is presented.

Discussion opened by Leon Unger, Chicago; H. R. Watkins, Bloomington; and Paul H. Holinger, Chicago.

11:00—"Lessons Learned from Blind School Survey". Robert J. Masters, Asst. Professor, Ophthalmology, Univ. of Indiana, Indianapolis

Three years ago it was discovered that the Indiana State School for the Blind had very inadequate records of the causes of blindness of its students. A survey was therefore undertaken with the purpose of making a record, as accurate as possible, of the cause of blindness of each student. During the course of this survey several interesting discoveries were made, as follows:

1. Practically every application for admission to the school carries upon it a "cause of blindness" which is meaningless and utterly useless for the compilation of statistics.

2. Considerable difficulty is encountered in making an accurate diagnosis by examination in many cases, because of lack of dependable history, plus inability to satisfactorily examine the eye grounds.

3. A challenge to the medical profession is offered by the relatively large number of children whose blindness could have been prevented.

4. The large number of cases of inherited blindness, with the apparent high percentage of transmission of some types of inherited blindness, offers another challenge to the medical profession. Some methods of meeting this problem will be discussed.

5. There are always a number of students at the school who should not be there. The need for a larger number of more widely distributed sight conservation classes is apparent.

6. The possible advantages to be derived by a school for the blind from a trained social service worker will be discussed.

7. There is no doubt regarding the value of group studies such as this for the statistical files of the National Society for the Prevention of Blindness. Similarly each individual ophthalmologist could render invaluable service to this organization by reporting to it all of the new cases of blindness which occur in his own practice every year.

11:30—"Ill Advised Nasal Surgery".....H. L. Ford, Champaign

A plea for more thorough pre-operative study.

Discussion opened by George Woodruff, Joliet.

Tuesday Afternoon, May 18, 1937

CREVE COEUR ROOM

2:30-5:00—"Round Table Discussion" (Ophthalmology).....E. K. Findlay,

Discussion of the practical points in operation for cataract—including preparation of patient, complications and after treatment.

Philip Corboy, Alva Sowers, and E. F. Snydacker, Chicago.

E. F. Snydacker, Chicago.

2:30-5:00—(Subject to be announced) Thomas Allen, Chicago.

2:30—"Round Table Discussion" (Ear, Nose, Throat).....Joe Beck, Chicago, Director

Harry L. Pollock, Chicago, Associate Director

Group 1

Management of Cases of:

1. Acute Middle Ear and Mastoid Disease in Infants and Children.
   S. Livingston, Chicago.....(20 minutes)
   Alfred Lewy, Chicago. Discussion.....(10 minutes)
2. Acute Infections of Pharynx and Larynx.
   Walter Stevenson, Quincy...(20 minutes)
   Frank Novak, Chicago. Discussion.....(10 minutes)
3. Chronic Sinus Infection in Children and Adults.
   J. R. Lindsay, Chicago.....(20 minutes)
   G. H. Scott, Chicago. Discussion.....(10 minutes)
4. REST PERIOD.....(5 minutes)
5. Discussion (General).....(15 minutes)
6. Discussion (Closing).....(10 minutes)

Group 2

1. Acute Sinus Infection in:
   (a) Children.
   (b) Adults.
   H. L. Ford, Champaign.....(20 minutes)
   S. Morwitz, Chicago. Discussion.....(10 minutes)
2. Reconstruction Operations About the Face for the Otolaryngologist.
   M. Reese Guttman, Chicago.(20 minutes)
   Meredith Ostrom, Rock Island. Discussion.....(10 minutes)
3. Carcinoma of Antrum and Naso-Pharynx.
   Sam Pearlman, Chicago.....(20 minutes)
   Samuel Salinger, Chicago. Discussion.....(10 minutes)
4. REST PERIOD.....(5 minutes)
5. Discussion (General).....(15 minutes)
6. Discussion (Closing).....(10 minutes)

Wednesday Morning, May 19, 1937

CREVE COEUR ROOM

9:00—"A Report on Two Hundred Cataract Operations"..Watson W. Gailey, Bloomington

This is an analysis of the complications encountered in two hundred cataract extractions in private practice. The four methods employed were:

1. Intracapsular technic using Kalt forceps.
2. Barraquer-employing the erisophake.
3. Smith Intracapsular method.
4. Extracapsular.

No serious attempt will be made to compare the incidence of complications or the end results in this series as the great majority of them were attempts to extract the lens in its capsule with Kalt forceps.

Discussion opened by O. B. Nugent, Chicago; Samuel J. Meyer, Chicago; A. B. Middleton, Pontiac; R. Griffy, Robinson.

9:30—"Modern Conception of Therapy in the Acute Infections of the Nose and Sinuses" .....O. E. Van Alyea, Chicago

Modern writers on treatment of acute sinusitis lean toward conservatism. Rhinology now has considerable regard for the restoration of normal physiologic function in the treatment of the acute process. During the past decade considerable research in various medical centers throughout the country and abroad has directed attention to the ciliated cells of the nasal and sinus mucosa and we know that our principal means of cleansing the nose and maintaining nasal function depends upon ciliary activity. All drugs and combinations of drugs commonly used in the nose are being carefully studied and those which inhibit ciliary action are being eliminated.

Irrigation of the sinuses is advocated for the removal of pus and the restoration of natural pathways of drainage.

The presentation will include a lantern slide demonstration of the Anatomy of the frontal and maxillary sinuses and their intranasal connections. The technique for irrigating these cavities through their natural openings will be described.

Discussion opened by Francis L. Lederer, Chicago.

10:00—"Report on Periodic Examination of School Children"..... .....G. Harmon Brunner, Glencoe

Discussion opened by Dwight C. Orcutt, Chicago; R. J. Coultas, Mattoon; Douglas A. Lehman, Harrisburg.

10:30—Chairman's Address..... .....John A. Cavanaugh, Chicago

Election of officers.

Wednesday Afternoon, May 19, 1937

CREVE COEUR ROOM

2:30—"Borderline Compensable Eye Conditions".....Sidney Walker, Chicago St. Luke's Hospital

Injury—claimed as causative factor,
Refractive errors.
Hyper. Astig. Myopia,
Diplopia,
Both paralytic and convergent squint.
Pterygium and Pinguecula,
Keratitis both superficial and deep,
Cataract in nearly all forms,
Iritis
Hyalitis
Retinal condition, most often detachment.
Optic Atrophy.

Claims of aggravation of pre-existing condition, most often found in,
Cataract,
Retinal detachment.

Valid trivial eye injuries aggravated by,
Focal infection and systemic infection, superficial lacerations and superficial foreign bodies resulting disastrously.
Safeguards and counter action.
Careful ocular examination very early in eye injury or alleged eye injury no matter how trivial.
Lack of response to local treatment should call for thorough physical examination.
Proper set up from medico-legal standpoint of any case suspected of possible legal controversy.
Present move against ambulance chasing attorneys of aid to defendants.

Discussion opened by C. B. Welton, Peoria.

3:00—"Saddle Nose" .....Samuel Salinger, Chicago, Professor of Otolaryngology, Loyola University, School of Medicine, Attending Otolaryngologist, Michael Reese Hospital

The text will include the treatment of saddle nose with particular reference to twelve years experience with the use of ivory implants. In 1931 I reported my first fifty cases. Since that time I have used ivory in over sixty additional cases with about 85% success. The paper will include the proper selection of cases, the preparation of the implants and the technique of their insertion. Will also discuss the type of case in which auricular cartilage is advisable and demonstrate the details of this operation.

Discussion opened by Harry Pollock, Chicago; Walter Stevenson, Quincy; O. E. Fink, Danville.

3:30—"Allergy of the Upper Respiratory Tract and Its Relation to Other Manifestations".....French K. Hansel, M. D., M. S., St. Louis, Mo. Assistant Professor of Otolaryngology, Washington University Medical School. Barnes Hospital, St. Louis Children's Hospital, Oscar Johnson Institute and McMillan Hospital

Allergy of the nose and paranasal sinuses will be briefly discussed from the standpoint of diagnosis and

treatment. Then the other manifestations, such as asthma, allergic bronchitis, skin allergy, gastrointestinal allergy and allergic headache will be considered in relation to the nasal symptoms.

4:15—"Cellophane in Ophthalmology"..... .....Ralph H. Woods, LaSalle

Standing hospital orders in eye injuries
1. Mine cases.
2. Factory, Ry. and top men.

Conjunctival burns
Cement, lye acid, lime.
Sewing in cellophane to prevent adhesions.

Neisserian infections
Cellophane for protection of well eye.

Vernal catarrh—Folliculitis of Allergic origin.
Cellophane protestant to eyes.

Cellophane for Submucous and other intranasal dressings.

4:30—"Malignancies" ....Thomas Galloway, Chicago

The treatment of cancer of the larynx with special regard to irradiation and surgery.

5:00—"Report of Intraocular Tumors"..... .....M. L. Ostrom, Rock Island

Title—Three interesting tumors of Uveal Tract
1. Malignant melanoma of iris—Spindle cell appearing 3 years after iridencleisis for glaucoma —Adult white female.
2. Malignant melanoma of choroid—White adult male.
3. Malignant melanoma of choroid mixed cell type II in adult negro male—discovered following enucleation and section of eye.

Discussion of uveal tumors including differential diagnosis.
Discussion of translumination of globe.
Discussion of therapy.
Case histories.
Slides and lantern demonstration.

Discussion opened by M. P. Palmer, Oak Park.

Thursday Morning, May 20, 1937

BALL ROOM

Joint Session with Sections on Medicine; Surgery; Public Health and Hygiene; and Radiology

(See Medical Section, for program.)

SECTION ON PUBLIC HEALTH AND HYGIENE

Archibald Hoyne .....*Chairman*
Winston H. Tucker.....*Secretary*

JEFFERSON HOTEL

Tuesday Afternoon, May 18, 1937

2:30—"Control of Smallpox in an Unvaccinated School Population".....Frank S. Needham, Commissioner of Health, Oak Park

This paper is a resume of an outbreak of smallpox that developed in a community of 70,000 people, with a school population of about 13,000 school children, very inadequately vaccinated.

Smallpox had been prevalent in the surrounding towns for several months, contact exposures had been handled apparently successfully, but, eventually, the disease developed in the high school.

Vigorous efforts were put forth, and the outbreak was practically controlled in two weeks.

Discussion opened by I. D. Rawlings, Chicago, Board of Health.

3:00—"Serodiagnostic Tests for Syphilis".. .....H. J. Shaughnessy Ph.D., State Health Department, Springfield

A discussion of what recent studies of the serology of syphilis means to the health officer and physician. The principal causes of difficulty in the interpretation of laboratory findings are reviewed. Suggested procedures for the standardization of laboratory tests for syphilis are outlined.

Discussion opened by John L. White, Chicago, Board of Health.

3:30—"Whooping Cough Diagnosis and Prevention" .....L. W. Sauer, Evanston

Whooping cough is most contagious early. Properly exposed cough plates show more colonies of Bordet-Gengou bacilli before the whoop is well established. After that, few if any, are recovered; negative plates do not exclude pertussis. Lymphocytosis gains in diagnostic importance when cough plates are negative. History of exposure in a non-immune child with a suspicious cough has diagnostic value; especially when the disease is prevalent.

The best age for vaccination with potent B. pertussis vaccine is between the seventh and twelfth month of life. (Total dosage, 8 cc. before three years; 10 cc. after three years). Most children so injected acquire immunity, if sufficient time intervenes between injection and exposure. Failures are less frequent since the technic of its commercial preparation has been improved and precautions in vaccine preservation and administration are more fully appreciated.

Discussion opened by Orville E. Barbour, Peoria.

4:00—"Poliomyelitis" ....Archibald L. Hoyne, Chicago

A review of 139 cases cared for in the Municipal Contagious Disease Hospital in Chicago. Discussion concerns the modern conception of this disease, the difficulties encountered in making an early diagnosis, and importance of proper treatment. Isolation and absolute rest are essential during the acute stage. Efficiency of serum treatment is still in doubt. After care is an orthopedic problem.

Discussion opened by John J. McShane, State Health Department, Springfield.

4:30—"Present Problems in Preventive Medicine".....E. A. Thacker, Health Service, University of Illinois, Urbana

The chronic insidious group of diseases is discussed from a public health viewpoint. The importance of regular physical and laboratory examination and the dangers from self-medication and quackery are stressed. The medical profession must take the initiative. A program is submitted for the solution of these public health problems. It includes education through radio, newspapers, family physicians, civic organizations, theatres, reputable pharmaceutical firms and insurance companies. The extermination of cults, quacks and "patent medicines" is also a function of the program. By having the support of the people, undesirable forms of socialized medicine can never materialize.

Discussion opened by L. M. T. Stillwell, Health Officer of Urbana.

Wednesday Afternoon, May 19, 1937

JEFFERSON HOTEL

2:30—"Industrial Hygiene—Its Historical Development and the Modern Campaign" .....M. H. Kronenberg, Chicago

Health problems in industry are increasing in extent and complexity. Most of them appear as a result of the rapid development and growth of air contaminating industrial processes.

The most important improvements and achievements in this field were due to 1. Legislative acts, 2. Medical inspection of industrial undertakings, 3. Compulsory reporting of industrial diseases and 4. Compensation of the diseased and disabled workers.

The continued success in Industrial Hygiene is only possible through the cooperative efforts of the physician, engineer, statesman and educator.

Discussion opened by George L. Apfelbach, Chicago.

3:00—"Diphtheria Prevention—A Municipal Problem" .....N. C. Bullock, Comr. of Health, Rockford

Diphtheria prevention in Illinois is a problem of the individual city. Some cities in the State have accomplished much in this important public health problem while others have done little or nothing.

The fundamental plans on diphtheria prevention in three cities of the State of Illinois are discussed in brief to represent the three different successful methods of attack. Chicago representing mass immunization under the direction of the Board of Health, Evanston on equal distribution of individual immunization by the family physician and mass immunization, and Rockford representing an example of what may be accomplished in individual immunization done entirely by the family physician in his private office.

Discussion opened by Sumner M. Miller, Health Commissioner of Peoria.

3:30—"Typhoid Carrier Control in Illinois" .....G. Howard Gowen, State Health Department, Springfield

With improvement of water supply, sewage disposal, and more meticulous care of milk, the discovery and control of the typhoid carrier assumes increasing importance.

It is the purpose of this paper to present the salient features in such control, and the coincident effect on typhoid fever morbidity.

Discussion opened by Roland R. Cross, Dahlgren.

4:00—"Modern Problems in the Control of Stretpococcic Diseases" .....John Hays Bailey, Chicago

Isolation and quarantine have failed to control the mortality and morbidity from streptococcic diseases. A short quarantine period may increase the morbidity. The present immunization procedure against scarlet fever does not decrease, apparently, the morbidity from streptococcic infection, although it may lower the scarlet fever rate. The carrier, whether a convalescent or a normal healthy one, must be considered in any control program.

Discussion opened by Arlington Ailes, LaSalle.

4:30—"Problems of a Health Officer in a Town of 40,000 People" .....H. O. Collins, Quincy

A discussion will be presented of the Quincy Public Health District elected by referendum at a general election in 1920 under the Statutes of the State of Illinois. The advantages of operating a Department of Health under this system will be pointed out. An outline will be presented on the procedure to be followed by those communities interested in establishing a Public Health District.

Discussion opened by Warren F. Pearce, Quincy.

Thursday Morning, May 20, 1937

HOTEL PERE MARQUETTE BALL ROOM

Joint Session with Sections on Medicine; Surgery; Eye, Ear, Nose and Throat; and Radiology

(See Medical Section for program.)

SECTION ON RADIOLOGY

Roswell T. Pettit.....*Chairman*

Ralph G. Willy.....*Secretary*

Tuesday Afternoon, May 18, 1937

VOGUE ROOM

2:30—"Experience with the 'periodicity' method of Ronetgentherapy in the Treatment of Nasophyaryngeal Carcinoma" .....Alexander Brunschwig and David Tschetter, University of Chicago

The immediate results in a limited series of cases will be presented.

Discussion opened by Robert F. McNattin, Cook County Hospital, Chicago.

3:00—"Radium Therapy of Cancer of Oral Cavity" .....
H. E. Davis, Cook County Hospital, Chicago

Interstitial irradiation by means of either radium or radon, is the method of choice in radium therapy of carcinoma of the lip, tongue, floor of mouth, tonsil and buccal mucosa. Lesions of the palate and aveolar ridge mucosa require contact applications of radium with specially constructed molds. Protracted irradiation with small amounts of radium has produced more complete destruction of the tumor and less destruction of normal tissue than intensive irradiation over a short period of time.

Colored lantern slides will be shown.

Discussion opened by E. G. C. Williams, Danville.

3:30—"Some Physical Aspects of Radiation Therapy" .....
....Robert Landauer, Ph.D., Highland Park

The factors involved in obtaining desirable quantity and quality of radiation at a given point in the body are enumerated and discussed in an attempt to enable the radiologist to obtain the greatest efficiency from the apparatus at his command.

Discussion opened by Roy Kegerreis, Chicago.

4:00—"Value and Limitation of Encephalography".....Abraham Levinson, Chicago

Encephalography is indicated in children who are believed to have organic cerebral lesions, such as birth trauma, cerebral agnesis, chronic encephalitis and some cases of epilepsy. The procedure may furnish not only diagnostic information but prognostic and therapeutic aid. The paper will discuss the technique, untoward symptoms and interpretation of the x-ray film.

Discussion opened by Fred Decker, Peoria.

4:30—"Radiographic Visualization of Some Unusual Sinus Tracts"Julius Brams, Chicago

A brief general discussion of the various indications for fistulography, the use of various opaques, the value of radiological exploration of the fistulous tracts, and a report of some unusual cases.

Discussion opened by Perry Goodwin, Peoria.

Wednesday Morning, May 19, 1937
BALL ROOM

SYMPOSIUM ON APPENDICITIS

Joint Session with Sections on Medicine and Surgery

1.—"Surgical Treatment of Appendicitis in Children" .....
Edwin M. Miller and Edgar Turner, Chicago

2.—"Difficulties in Diagnosis of Appendicitis" .....Darwin Kirby, Champaign

3.—"The Radiological Appendix".....George M. Landau and Robert A. Arens, Chicago

4.—"Diagnosis of Appendicitis in Children" .....H. W. Elghammer, Chicago

5.—"Diagnostic Difficulties in Appendicitis" .....LeRoy H. Sloan, Chicago

6.—"Post-Operative Complications of Acute Appendicitis and Their Treatment".....
.....Ciney Rich, Decatur

(*For abstracts of papers, see Section on Medicine.*)

Wednesday Afternoon, May 19, 1937
Vogue Room

2:30—"Silicosis".....Roswell T. Pettit,

Character of tuberculous densities can be identified on the Roentgen films as a productive or exudative, having important bearings on diagnosis and prognosis. Similar differentiation based upon character of densities can be made in pneumoconiosis separating silicosis sharply from anthracosis.

Discussion opened by Paul Dick, Chicago.

3:00—"The Diagnosis of Bronchogenic Carcinoma" .....1. Roentgen Aspects, A. Hartung and T. J. Wachowski, University of Illinois, Chicago. 2. Bronschscopic Aspects, Paul Holinger, University of Illinois, Chicago.

The increasing recognition of bronchogenic carcinoma may be accounted for in large part by the aid roentgenology and bronchoscopy have furnished. In very early cases without definite physical or roentgen findings, bronchoscopic inspection is indispensable. Most cases come under observation when pathological changes have progressed to where they may be definitely demonstrated roentgenologically as to site, extent and concomitant secondary pathology. Bronchoscopy is necessary to establish its identity histologically. Findings observed in verified cases will be analyzed with a view towards evaluating their diagnostic significance.

Discussion opened by Willard Van Hazel, Chicago; F. Flinn, Decatur.

4:00—"Some Roentgen Considerations of the Childhood Type of Tuberculosis".... Earl E. Barth, Northwestern University,Chicago

A roentgen study of the chest is indispensable in the examination of a child, suspected of having tuberculosis. Serial films will usually yield more definite information than a single or stereoscopic film. Two types of lesions should be looked for, the parenchymal and the tracheo bronchial. Parenchymal lesions may occur in any part of the lung and may be circumscribed or have a diffuse pneumonic appearance. Involvement of tracheobronchial lymph glands may be seen in masses which distort or protrude beyond the normal hilum.

Discussion opened by Edwin Rypins, Bloomington.

4:30—"Ureteral Obstructions".....
.....E. R. Crowder, Evanston

A discussion of some phases of the obstruction of the ureter as demonstrated with the intravenous urogram.

Discussion opened by Henry Grote, Bloomington.

5:00—"Distortion in X-Ray Films".....

.....Edmund Halley, Decatur

An x-ray film, being a complex silhouette record, is subject to many apparent inaccuracies in the representation of normal or pathologic anatomy. Awareness of the technical factors responsible for such distortion aids more accurate mental reconstruction of the part being examined. The subject falls into three classes; distortion, resulting from varied relation between energy source, object, and recording media; that due to different types of energy source (focal spot); and distortion inherent in recording media.

Discussion opened by D. P. Weins, Peoria.

Thursday Morning, May 20, 1937

BALL ROOM

Joint Session with Sections on Medicine; Surgery; Eye, Ear, Nose and Throat; and Public Health and Hygiene

(See Medical Section for program.)

RULES GOVERNING PRESENTATION OF PAPERS

"All papers read by members shall be limited to twenty minutes and remarks in discussion to five minutes, floor privilege being allowed only once for the discussion of any one subject.

"All papers read before the Society or any of its Sections shall become the property of the Society. Each paper shall be deposited with the Secretary of the Section when read and the presentation of a paper to the Illinois State Medical Society shall be considered tantamount to the assurance on the part of the writer that such paper has not already appeared and will not appear in medical print before it has been published in the Illinois Medical Journal.

"A paper not heard in its scheduled turn shall be held subject to the call of the Chairman of the Section at the end of the regular session if time permits, or as an alternative at the end of the program.

"All subjects shall be confined strictly to the subject in hand.

"No paper shall appear in the printed transactions of the meeting unless read in full or in abstract."

(From the By-Laws of Illinois State Medical Society)

SCIENTIFIC EXHIBITS

Pere Marquette Hotel

LOUNGE

J. S. Templeton, *Chairman,* Pinckneysville.

N. S. Davis, III, *Secretary,* Chicago.

Booth S1—"What the Public is Thinking About Health." American Medical Association, Thomas J. Hull. An exhibit of mechanical material, posters and display files giving an analysis of 10,000 requests for information which have come to the American Medical Association from the public.

Booth S2—"Histology of Irradiated Tumors." Decatur and Macon County Hospital, Decatur. Perry J. Melnick, M. D., Ph. D., and Albert Bachem, Ph.D. Histologic changes in irradiated tumors, based upon an experimental study of 131 transplantable rat tumors irradiated by the various x-ray treatment methods. The results of chief interest are the demonstration of two different types of degenerative changes in irradiated tumor cells. One of these is known, and consists of a process resembling simple necrosis. The other occurs in tumors irradiated by divided dose methods, and consists of a change in the nuclei so that abnormal cell forms are produced which fail to survive and degenerate in a specific manner—a kind of lethal mutation.

Booths S3a, S3b—"The Chemistry and Pathology of Pneumoconiosis." Henry C. Sweany, Chicago. Ante mortem, Postmorten and enlarged regional roentgenograms of different types of lung diseases caused by the inhalation of dust; pathological specimens to correspond, and exhibits of the various chemical procedures used in the analytical work.

Booth S4—"The Lesion of Lobar Pneumonia; A Clinical and Experimental Study." O. H. Robertson, W. D. Sutliff, and John P. Fox, University of Chicago, Chicago. Exhibit is divided as follows: 1. Early diagnosis shown by roentgenographic evidences and charts of physical signs in lobar pneumonia less than twenty-four hours after onset. 2. Evolution of consolidation shown by roentgenographic observations during the course of the disease in human beings. 3. Gross and microscopic lesions illustrating method of production of experimental lobar pneumonia in dogs. 4. Factors in recovery from lobar pneumonia in men and dogs. Schematic relationship of serum antibodies to the course of the disease. Photomicrographs illustrating the activity of polymorphonuclear phagocytes and macrophages in the clearing local lesions.

Booth S5—"Relation of Medicine and Surgery to the Railroad." James H. Hutton, G. G. Dowdall, W. T. Harsha, LeRoy H. Sloan, E. C. Olson, Wm. L. Culpepper, J. J. Gill, S. C. Hogan, H. W. Elghammer, Hugh N. MacKechnie, J. Quin, E. E. Madden, Everett M. Laury, Illinois Central Hospital, Chicago. This exhibit will consist mostly of charts showing types of cases, results of treatment, mortality tables. X-ray films reduced to a standard 5 x 7 size.

Booths S6a, S6b, S6c, S6d—"Research Studies in Morbidity, Mortality and Public Health Organization." The State of Illinois, Department of Public Health. Henry Horner, Governor; Frank J. Jirka, Director. The exhibit consists of a series of graphical illustrations which portray pertinent information about the epidemic characteristics, incidence of illness and of paralysis and geographical distribution of poliomyelitis; the reported prevalence, estimated and reported mortality, distribution, characteristics of patients and recommended treatment of syphilis; trends in maternal and infant mortality and its geographical distribution; or-

ganization and functions of the State Department of Public Healh.

Booth S8—"The Prevention and Relief of Heart Disease." Chicago Heart Association, Gertrude Howe Britton, Executive Sec'y. Charts and slides outlining important measures in the prevention and relief of heart disease, with special attention to rheumatic heart disease, periodic examinations, general treatment, including occupational therapy, rest, diet, convalescent care, and camps and classes for cardiac children.

Booth S9—"New Apparatus for the Registering of Heart Sounds. Using a Loud Speaker Unit." Edward W. Hollingsworth, Albert Sorensen, Albert Van den Briessche, Chicago. Apparatus for recording heart sounds in conjunction with electrocardiogram, by means of a magnetic speaker. Consists of a dynamic radio speaker without the cone, with amplifier, plugs for ear phones and loud speaker, the two latter being used to hear heart sounds as they are being graphically recorded. An electrocardiograph will probably be part of the exhibit.

Booth S10—"Cancer of the Tonsil, Pharynx and Larynx." Max Cutler, Michael Reese Hospital, Chicago. Symposium on Radium Treatment of Carcinoma of the Tonsil, Pharynx and Larynx. Photographs, Models and photomicrographs showing the methods employed in the Radiation treatment of Carcinoma of the Tonsil, Pharynx and Larynx. The indications for Radiation therapy and contra-indications will be demonstrated. Classification of these lesions and methods of treatment will be shown. Histopathology will be demonstrated.

Booth S11—"Public Health Aspects of the Cardio-vascular-renal Diseases." Metropolitan Life Insurance Company, Mr. Louis I. Dublin, New York. Thirteen placards illustrating:

1. Extent of Mortality.
2. Factor in Mortality.
3. Trends of Mortality.

PUBLIC LOBBY

Booth S12a—"Tonsillectomy." Paul A. Campbell, Chicago. Color moving pictures of some of the methods of tonsillectomy. Detail pictures are taken with telephoto lens and show technique in fine detail. A few pathological conditions of the tonsils are also presented in the film.

Booth S12b—"Exhibition of Poliomyelitis Film." Paul H. Harmon, Chicago. Illinois State Poliomyelitis Commission, Drs. Jirka, Harmon, Shaughnessy, Tucker and Levinson. A film showing:

1. Experimental work.
2. Criteria for early diagnosis.
3. Methods of Orthopedic reconstruction in anterior poliomyelitis.

Booths S13a, S13b—"Hemorrhage—Causes and Treatment." C. L. Birch, L. R. Limarzi, University of Illinois College of Medicine, Chicago. Chart of Classification of Hemorrhage. Colored photographs of clinical manifestations of hemorrhagic disorders. Demonstration of methods of blood typing and blood transfusion. Colored charts of blood pictures of the blood dyscrasias.

Booth S14—"Experimental Endocarditis Due to Pressor Reactions." A. J. Nedzel, University of Illinois College of Medicine, Chicago. Microphotographs, gross specimen, slides. Pitressin injections cause a stimulation of valvular endothelium (especially mitral) and the latter becomes adhesive. If there are floating bacteria in the blood stream, they may adhere and proliferate, leading to the development of true bacterial endocarditis. Pitressin injections cause changes in the subendothelial layers also. If no bacteria are present, the fibroblasts proliferate, building a defensive palisade of cells near the surface. Later, scar tissue and verrucae appear, with complete healing from the injury that has been inflicted to the valve.

Booth S15—"Relationship between Oral and Gastric Bacterial Flora." Robert W. Keeton, Lloyd Arnold and Marion Hood, University of Illinois College of Medicine, Departments of Medicine, and Bacteriology and Public Health, Chicago. Large 4 x 6 foot sized schematic representation of oral and gastric regions showing bacterial flora in color. Graphs for side walls illustrating detailed observations.

Booth S16—"Clinico-Pathologic Correlation." Milton G. Bohrod, St. Francis and Methodist Hospitals, Peoria. Charts, Photographs, Specimens and Photomicrographs of a group of interesting cases illustrating the correlations between clinical signs and symptoms and the pathologic changes found.

BALL ROOM FOYER

Booth S18—"Pathology of Tuberculosis and Tuberculin Testing. Technique of Diagnosis in Youth." Illinois Tuberculosis Association; Peoria County Tuberculosis Association, Fred M. F. Meixner, President. This exhibit comes from the Illinois Tuberculosis Association. It consists of nine large transparencies; one a flasher showing that tuberculosis is the foe of youth. Eight in order show the germ of tuberculosis greatly magnified, the circle of communicability between a tuberculosis patient and the object of infection, the formation of the primary nodule, the infection of the tracheobronchial lumph node; the development of active disease. Then there are transparencies to show the necessity for and the reaction to the tuberculin test and the fact that the tuberculin test must be followed by the x-ray.

Booth S19—"Demonstration of the Method of Application of Mecholyl and of Electropyrexia." D. E. Markson, D. Boyd, J. R. Merriman and S. L. Osborne, Northwestern University School of Medicine, Chicago.

1. Demonstration of method of application of mecholyl by common ion transfer (ionization) with the plethysmographic changes during such treatment.
2. The application of electropyrexia in the treatment of arthritis (fever machine, treatment bag, and special registering thermometer will be demonstrated).

Booth S20—"Measurements of the Peripheral Circulation by the Plethysmograph." Carl A. Johnson, St. Luke's Hospital and Northwestern University School of Medicine, Chicago. Demonstration with lantern slides and transparencies of the plethysmographic changes in normal individuals, in those with Buerger's

Disease, Reynaud's syndrome and aortic regurgitation after nerve block with novocain and application of heat locally.

Booth S21—"The Thyrotropic Hormone of the Anterior Pituitary Gland. Bio-assay by Graphic Analysis of Hyperplasia in the Guinea Pig Thyroid." Paul and R. W. Rawson, Northwestern University School of Medicine, Chicago. The exhibit will consist of:

1. Chemical Characteristics. Methods of preparing Solutions.

2. Method of Assay by Graphic Analysis of Hyperplasia of Thyroid of Test Animals.

A. Variation in sensitivity of different species.

a. Photographs of thyroids of dog, rat, rabbit, guinea pig, cat, cattle, sheep, hog.

B. Other methods of assay.

a. Animal metabolism apparatus.

3. Physiologic Effects in Animals.

A. Acute effects.

B. Prolonged injections; production of true experimental hyperthyroidism; illustrations of the complete clinical and physiological picture of hyperthyroidism in the guinea-pig.

C. Production of exophthalmos by the thyrotropic hormone.

D. Antihormone production by prolonged injection.

4. Bio-assay in man of occurrence of thyrotropic hormone in blood and urine.

A. In normal men and women.

B. During the menstrual cycle.

C. In thyroid diseases.

D. In pituitary diseases.

5. Effects of Injection in man.

A. Acute effects—use as a dignostic test for hyperthyroidism.

B. Variations in sensitivity in various endocrine types.

C. Results in myxedema.

D. Results in simple hypothyroidism.

E. Attempt to produce antihormone control of clinical hyperthyroidism.

(Charts of B.M.R. curves in patients).

Booth S22—"Conical Pathological Exhibit of Cardiac Lesions and Multiple Myeloma." Arthur E. Mahle, Northwestern University School of Medicine, and Evanston Hospital, Chicago and Evanston. The exhibit, from the Department of Medicine and Pathology of Evanston Hospital, Northwestern University School of Medicine, shows: 1. Primary heart tumor with clinical resume and post mortem and pathological findings, microscopic sections (transparencies of tumor) 2. A series of hearts with above abstracts, transparencies, etc. Aortic stenosis. 3. Case of multiple myeloma with crystalline Bence Jones protein; x-ray pictures; microscopic sections, tumors and post mortem findings.

Booth S23—"Human Convalescent Serum—Preparation, Administration and Evaluation in Scarlet Fever, Measles, and Poliomyelitis." Sidney O. Levinson, Elizabeth Penruddocke, A.B., Albert M. Wolf, Samuel Deutsch Serum Center, Michael Reese Hospital, Chicago. This exhibit will consists of:

(a) 12 photographs 10½ x 8½ demonstrating the steps of processing convalescent serum.

(b) Three photographs of the Serum Center, showing special apparatus and equipment.

(c) Models of pooling, filtering and bottling set-ups used in serum preparation.

(d) Poliomyelitis kit used by diagnosticians.

(e) 7-10 Charts 18" x 24" of tables and results.

Booth S24—"The Tense Patient in General Medical Practice."—Edmund Jacobson, Laboratory for Clinical Physiology, Chicago. Photographic records, charts and x-rays illustrating how tenseness in patients can be studied clinically and recorded in the laboratory.

GALLERY

Booth S25—"Studies of the Incidence of Disease." Illinois State Planning Commission, Hon. Henry Horner, Governor, Mr. Robert Kingery, Chairman, Chicago. Charts illustrating incidence of various diseases in different parts of Illinois and its relation to economic and hygienic conditions in the areas.

SECOND FLOOR ELEVATOR LOBBY

Booth S26—"Spondylolisthesis." Fremont A. Chandler and John R. Norcross, Northwestern University School of Medicine, Chicago. Exhibit to consist of demonstration of Spondylolisthesis by a series of 5 x 7 negatives made from x-ray films, charts and photographs and the demonstration of large and small plaster models. The mechanism in the roentgenographic pictures of this lesion is demonstrated by both the films and the models.

Booth S27—"Renal Stone." Frederick Lieberthal, Department of Urology, Northwestern University School of Medicine, Chicago. A series of about 150 water color drawings and x-ray plates selected from several hundred cases of renal and ureteral stone, showing the pathologic changes which may occur in the disease and the relation of these changes to diagnosis and operative therapy.

ROOM 204

Booth S7—"The Illinois Educational Program in Maternal Child Hygiene." State Department of Public Health, Illinois State Medical Society. Demonstration of Home Delivery Technic. Original illustrations utilized in Refresher Courses on the subjects of Puerperal Sepsis, Toxemias of pregnancy and obstetric hemorrhage. Statistical Charts on Maternal and Infant Death Rate in Illinois. Organization Charts.

ROOM 205

Booth S31—"Carcinoma of the Tongue." Frank E. Simpson, Chicago. The exhibit will consist of three parts:

1. Radon applicators used in surface treatment; the radon bomb; model of radon machine with technic of making lead radon tubules for implantation.

2. Transparencies of cases treated, with histories and microscopic sections.

3. Motion picture of technic of treatment of carcinoma of the tongue.

ROOM 209

Booth S17—"A Colorimetric Method for the Determination of Serum Magnesium." William S. Hoffman, Chicago Medical School, Chicago. The steps in the

micro-determination of serum magnesium will be shown, starting from the filtrate obtained by precipitation of calcium and showing successively the production of a tricholroacetic acid filtrate, the precipitation of magnesium 8-hydroxy-quinoline in specially designed centrifuge tubes, the washing of the precipitate, and the formation of a green-blue color with ferric chloride. The use of a photoelectric colorimeter (Cenco-Sheard-Sanford Photolometer) will be demonstrated. Charts will be presented showing the curve of values obtained with the colorimeter, as well as those showing the concentrations of magnesium in health and disease.

Booth S28—"The Use of Perirenal Air Injections in the Diagnosis of Certain Adrenal Diseases." C. H. Drenckhahn and Cesare Gianturco, Carle Hospital Clinic, Urbana. The diagnosis of adrenal tumors and hypertrophies has always been difficult. From the clinical symptoms and physical examination, one is able to come to the conclusion that the adrenal glands may be at fault, but inasmuch as the adrenals are a bilateral organ, we cannot, by this method, scientifically incriminate one or the other. The use of perirenal air injections in the diagnosis of certain adrenal diseases was originally carried out by Carelli in 1923 in Rio de Janerio. We have been following this procedure and have found it to be quite accurate in the diagnosis of hypertrophies and tumors of the adrenals. The purpose of this exhibit is to show some of these films with the clinical history corresponding to each film and to describe the technique in detail. Likewise, the value of this method to prove that the adrenals are normal in all cases of hypertension which are to come to surgery for splanchnic resection, or any other method of surgical nerve resection for hypertension, will be stressed.

Booth S30—"Collapse Therapy in Pulmonary Disease." Municipal Tuberculosis Sanitarium, Karl J. Henrichsen. Roentgenograms illustrating collapse therapy in non-tuberculous and tuberculous disease.

ROOM 222

Booth S29—"Fracture Exhibit." W. J. Potts, Oak Park. The various common fractures will be discussed, and the proper treatment will be outlined. Young men will be used as patients, and the plaster appliances adjusted for those interested. (A number of exhibitors will participate.)

EXHIBITORS AT THE 1937 ANNUAL MEETING

Arlington Chemical Company, Yonkers, New York.
A. S. Aloe Company, St. Louis, Missouri.
Bard-Parker Company, Inc., Danbury, Connecticut.
The Borden Company, New York, N. Y.
Chappel Bros., Inc., Rockford, Illinois.
C. B. Fleet Company, Lynchburg, Virginia.
Gerber Products Company, Fremont, Michigan.
General Electric X-Ray Corporation, Chicago, Ill.
H. J. Heinz Company, Pittsburgh, Pa.
The G. F. Harvey Company, Saratoga Springs, N. Y.
Horlick's Malted Milk Corporation, Racine, Wis.
Kellogg Company, Battle Creek, Michigan.
Lepel High Frequency Labs. Inc., New York, N. Y.
Lederle Laboratories, New York, N. Y.
Lea & Febiger, Philadelphia, Pennsylvania.
Libby, McNeill & Libby, Chicago, Illinois.
J. B. Lippincott Company, Philadelphia, Pennsylvania.
F. Mattern Manufacturing Company, Chicago, Ill.
The C. V. Mosby Company, St. Louis, Missouri.
The Medical Protective Company, Wheaton, Illinois.
Middlewest Instrument Company, Chicago, Illinois.
Mellins Food Company, Boston, Massachusetts.
V. Mueller & Company, Chicago, Illinois.
M. & R. Dietetic Laboratories, Inc., Columbus, Ohio.
Mead Johnson & Company, Evansville, Indiana.
Philip Morris & Co., Ltd., Inc., New York, N. Y.
Pet Milk Sales Corporation, St. Louis, Missouri.
Petrolagar Laboratories, Inc., Chicago, Illinois.
Sutliff & Case Co., Inc., Peoria, Illinois.
W. B. Saunders Company, Philadelphia, Pa.
Universal Products Corporation, Pottstown, Pa.

NOTES ON EXHIBITS

The W. B. Saunders Company, at booth number 15, will exhibit a complete line of their publications. Of particular interest will be many new books and new editions, including a brand new, remade edition of Warbasse-Smyth's three volume work on Surgical Treatment. This work contains 3,000 pages and 2,500 illustrations, and covers the entire management and treatment of all surgical cases—medical as well as non-medical treatment.

Other important works in the surgical field are Bickham's seven volume, "Operative Technic," Christopher's "Minor Surgery," and the new Mayo Clinic Volume.

In the field of general medicine and the specialties, important new works include, "The Medical Clinics of North America," Levien's "Clinical Heart Disease," Wolf's "Clinical Endocrinology," Berens' "Eye Diseases," Curtis' three volume "Obstetrics and Gynecology," the new edition of Griffith and Mitchell's "Pediatrics," the new Sollmann's "Pharmacology," a new work on "Diseases of the Larynx," by Chevalier Jackson, and Tuft's new book on "Clinical Allergy."

Gerber's in booth number 16, cordially invites you to stop and see their two new products, Strained Apricot-Apple Sauce and Strained Liver Soup with Vegetables.

Gerber's have two types of literature, some for distribution to patients, and some for professional use only. Samples of the foods and the literature will be sent to registrants at the booth.

The proportion of maltose and dextrins in Mellin's Food, the protein and mineral content and the favorable effect of Mellin's Food on the digestibility of milk are distinctions that commend Mellin's Food as a modifier of milk for the feeding of infants and for the preparation of nourishment for adults requiring a restricted diet. Physicians are invited to call at our booth—number 2, to discuss their feeding problems.

A feature of the Mead Johnson exhibit, in booth number 17, will be a display of the Percomorph group of products; namely, Mead's Oleum Percomorphum, 50 per cent in liquid and in capsule form, and Mead's Cod Liver Oil Fortified with Percomorph Liver Oil.

Featuring Chappel Laboratories contributions in the field of liver and endocrine therapy; potent, highly refined, clinically tested, Chappel Pharmaceuticals have

set a new high standard for pernicious and secondary anemia preparations.

Chappel LIV-IRN preparations present a complete line of secondary anemia products in liquid, capsule and tablet form; while Chappel Concentrated Liver Extracts for pernicious anemias are in the Intramuscular, Subcutaneous and Oral form.

We welcome all members of the Illinois State Medical Society to visit our display at booth number 19.

The Medical Protective Company is represented at booth number 24 where you are invited to call. Medical Protective Service is an institution of the medical profession whose legal liability problems we have concentrated upon for 38 years.

Bring your professional liability questions and problems to booth 24. Our representative is at your service to present our protection plan, to explain the peculiar relation of the doctor to the law which governs your practice, or to discuss any particular phase of Professional Liability in which you are especially interested.

A number of new books will be displayed by the J. B. Lippincott Company (Booth number 25) including Emerson's "A Textbook of Medicine"; Pfaundler and Schlossmann's "Diseases of Children"; McBride's "Disability Evaluation"; Hermann's "Passive Vascular Exercises"; Peham and Amreich's "Operative Gynecology"; and Kirschner's "Operative Surgery."

We will also display an entirely new work, just issued, on the "Thyroid and Its Diseases," by Means, showing the results obtained at the Thyroid Clinic of the Massachusetts General Hospital.

V. Mueller & Company in booth number 1, will have on display many new items, and they cordially invite you to spend as much time as you wish at their exhibit, inspecting the many recent developments in surgical instruments.

The Cold Cautery Scalpel should be of special interest, also the Shahan Ophthalmic light and Furniss intestinal Anastomosis Clamp. An extensive line of instruments for fractures and bone surgery will also be shown.

Mueller's exhibits are always interesting and instructive.

A. S. Aloe Company, in booth number 14, will display a general line of surgical instruments and equipment for the physician and hospital.

The new Aloe Short Wave Diatherm, the Elliott Treatment Regulator, the deBakey Blood Transfusion Instrument and the newly created Steeline furniture for the treatment room, will be featured.

Mr. V. Drennan, Aloe representative in this territory, will be in attendance to serve in any way possible.

In booth number 26, the G. F. Harvey Company will display some of our special preparations which are known as "Ethical Products for the Medical Profession."

Physicians are cordially invited to visit the new convention display at booth number 12, where Petrolagar Laboratories, Inc. will be represented by Mr. R. A. Beeson.

Petrolagar is an emulsion of pure mineral oil (65 per cent by volume) and agar-agar, accepted by the Council on Pharmacy and Chemistry of the American Medical Association for the specialized treatment of constipation. Scientific drawings and literature on the subject of constipation will be available in addition to samples of the five types of Petrolagar.

While at the Illinois State Medical Society meeting, visit the Kellogg booth number 13 for a cup of refreshing Kaffee Hag Coffee. Bottle exhibits showing the stages in decaffeinizing coffee are displayed, and complete explanation of the process is given. Reprints of reports covering research carried on at the University of Michigan to determine the effects of caffeine are available.

The exhibit is in charge of a representative of the Home Economics Department of the Kellogg Company.

A warm welcome awaits all physicians at the Borden booth, number 18. Especially trained representatives will gladly provide information on Borden products, notably DRYCO, Special DRYCO, KLIM, BETA LACTOSE, Merrell-Soule Prescription Products and Borden's Irradiated Evaporated Milk.

Be sure to stop at booth number 22 when you are visiting the technical exhibits and get a few very interesting and educational facts on the New Jones MOTOR BASAL unit.

It is Council accepted, guaranteed for life, contains no water, and embodies many exclusive features which will interest you.

At space number 27, in charge of L. E. Drury, Lea & Febiger will exhibit a number of important new works including:

Atkinson on the Ocular Fundus.
Brahdy & Kahn on Trauma and Disease.
Bond's Introduction to Medical Science.
Levinson & MacFate's Clinical Laboratory Diagnosis.
Werner's Endocrinology.
Wesson & Ruggles' Urological Roentgenology.
Davis' Neurological Surgery.

New editions of the following standard works will also be shown:

Bridges' Dietetics.
Cabot's Urology.
Cushny's Pharmacology.
Gifford's Ocular Therapeutics.
Kuntz on Neuro-Anatomy.
Rhinehart's Roentgenographic Technique.
Starling's Physiology.
Gray's Anatomy.
Holmes & Ruggles' Roentgen Interpretation and others.

You are cordially invited to visit the Horlick's Malted Milk Corporation Exhibit in booth number 3. Your attention is drawn to the special advantages of Horlick's Malted Milk as a nutritious, easily digested food-drink, often acceptable when no other food can be tolerated. Its special value will be pointed out:

1. For infant feeding.
2. For growing children.
3. For nursing mothers.
4. For the undernourished.
5. For the sick, especially in fever and ulcer diets.
6. For the convalescent.

7. In sleeplessness.

Libby's Baby Foods are prepared by a new and different method of homogenization, which breaks up the food cells and liberates nutriment for ready and easy digestion: roughage is reduced to tiny particles so that bulk is present for normal elimination without dangers of irritation. Doctors are invited to inspect these products at Libby's booth number 4. Pineapple Juice and Tomato Juice are being served.

Philip Morris & Co. Ltd. Inc., will demonstrate at booth number 23, the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than ordinary cigarettes in which glycerine is employed.

An actual working model of a milk condensing plant in miniature—every part constructed to scale—will be exhibited by Pet Milk Company in booths five and six.

It will show the method by which the milk is processed from the time it is received from the farmer until it is sterilized in the can ready for use.

The C. V. Mosby Company will exhibit its complete line of medical publications. Among the new editions to be shown for the first time will be the following:

Horsley-Bigger—"Operative Surgery."
Meakins—"The Practice of Medicine."
Mansfield—"Materia Medica."
Sadler—"Theory and Practice of Psychiatry."
Titus—"The Management of Obstetric Difficulties."
Hirschman—"Synosis of Ano-Rectal Diseases."
Shands—"Handbook of Orthopedic Surgery."

Physicians attending the Illinois Medical Convention are cordially invited to inspect these, and other Mosby publications at booth number 28.

The Lederle Laboratories, Incorporated, displays in booth number 21, a number of outstanding biological and pharmaceutical products—Solution Liver Extract in 1 cc. vials for intramuscular use; Pollen Antigens, for the treatment of hay fever, in individual dose packages, and also in the more economical bulk packages; Globulin Modified Antitoxins, low in volume and with serum protein content greatly decreased; Vitamin B Complex and other important vitamin products. Literature, descriptive of these and all other Lederle products, will be available at the booth.

The exhibit of Sutliff & Case Company, Inc., to be found in booth number 11, will again feature their product "A-VITAM-UNG."

Many clinical reports have been received from all parts of the country showing the satisfactory results obtained from the use of this preparation in the treatment of burns, chronic ulcers, and infected wounds.

"A-VITAM-UNG" represents a successful blending of the primary form of Vitamin A in plant material into a sterile ointment base, and it contains approximately 2,000 U. S. P. XI units per gram of Vitamin A activity, which is thought to be the optimum concentration for stimulating granulation of denuded and abraded body tissue. Literature and demonstrations relative to the use of this preparation will be made a part of the display.

The Arlington Chemical Company, Yonkers, N. Y., in booth number 29, will feature their protein and pollen extracts for diagnosis and desensitization of allergic conditions, especially the one dollar diagnostic pollen outfits and the $25.00 and $35.00 protein outfits. Their experts at their booth will be pleased to discuss any allergic problems.

H. J. Heinz Company, makers of the 57 Varieties, invites you to visit their new exhibit at booth number 7, featuring strained foods, breakfast cereals and olive oil.

Stop for a cold drink of Heinz Tomato Juice and register for the third edition of the Nutritional Chart. The two previous editions were so enthusiastically received that it was thought advisable to make frequent revisions in order to keep abreast with the rapid advances in the field of nutrition.

Lepel Laboratories will exhibit two Ultra-Short Wave Machines, a portable and an office model, and a Lepel Quartz mercury lamp, at their booth, number 8.

The dominant feature of the Lepel Ultra-Short Wave machine is that it uses fixed spark gaps, instead of vacuum tubes. Each machine is actually five machines in one, embodying as they do, in addition to the short wave therapy, circuits for desiccation, coagulation, cutting and the operation of both body and orificial quartz mercury ultra-violet lamps.

The Bard-Parker Company will demonstrate at booth number 30 the outstanding features of their Rib-Back blade incorporating new standards of cutting efficiency and economy.

Also will be shown a complete line of stainless steel scissors with renewable edges which eliminate resharpening, a selection of quality forceps with the Lahey lock and an interesting demonstration of Rustproof sterilization for surgical instruments with B-P Formaldehyde Germicide.

Fifty years of meritorious results are back of the name Phospho-Soda (Fleet). The elimination action of Phospho-Soda (Fleet) has been recognized and appreciated by generations of physicians. ACCEPT NO SUBSTITUTE. Samples will be supplied upon request at booth number 10.

At the Universal Products Corporation table you will find displayed SURGEONS' X-L-LYTE, a compact and serviceable diagnostic set, and not expensive. This set contains ear speculum, tonsil pillar retractor, tongue depressor, magnifying lens, and nasal speculum, with direct illumination for all.

Nickel silver curette, probe, ear spoon and applicator are included in the set.

The entire set is contained in a neat and serviceable leather case which is equipped with a hookless fastener.

F. Mattern Mfg. Company, Chicago, will be pleased to greet their friends in Booth number 9. In the display will be the Mattern self-contained Shockproof Motor Driven Combination Radiographic, Fluoroscopic and Bucky Tilt Table which places at the disposal of the Roentgenologist or physician a complete Diagnostic Unit for doing both Radiographic and Fluoroscopic work in any position.

The Mattern 30-60 Mobile Shockproof X-Ray Unit will also be featured in the exhibit. This Unit can be had in either 30 milliamperes or 60 milliamperes capacity at 90 Kilo-Volts. It is a completely shockproof

unit consisting of control stand; oil transformer; tube stand with shockproof tube housing on a mobile base, which is extremely light, very flexible and easy to move about whether in the office or in the hospital. The floor space occupied by this unit is 4 square feet.

All physicians attending the meeting are invited to inspect these excellent units, and the attendants will gladly give all available information relative to them, and to other Mattern equipment.

The new, lightweight, low-priced G-E Electrocardiograph will be exhibited in the General Electric X-ray Corporation's booth number 31.

This fine instrument will be of interest to every physician as will, also, the recently introduced Model "F" Ultraviolet Lamp—a better lamp costing less; the world-famous Inductotherm, and portable, shockproof X-ray equipment.

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Eighty-Seventh Annual Meeting

PEORIA, ILLINOIS

May 18, 19, 20, 1937

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Hay fever and asthma may be caused in many cases by molds. The author says that molds are second only to pollens as a cause of this disease. A series of 28 patients with allergy to molds were treated by specific mold desensitization with satisfactory results in 23. Feinberg, S. M., *J. A. M. A.* 107:1861, 1936.

The *Journal of the American Medical Association* reports the discovery of a drug that will enable a person to feel warm in cold weather. It is said to be almost as effective as reading the national debt figures. —*Hartford Courant.*

PLIGHT OF AUSTRIAN PHYSICIANS

A letter from Dr. Karl Narbeshuber, president of the Austrian Medical Association, to the International Medical Association of Paris is an appeal for help from the physicians of other countries in the struggle of the Austrian physicians against sickness insurance. He declares that the Austrian physicians have struggled for a year and a half for their very existence against proposed reforms in sickness insurance; they are now appealing for support to the International Medical Association just as their confrères in Hungary appealed during the past year.

Sickness insurance is today everywhere almost the only field of occupation for the majority of physicians —it is their principal source of income, on which depend their fate and that of their families. Each alteration may prove fatal. There are today three great dangers that seriously threaten the very existence of a large section of the Austrian physicians: first, the great overcrowding of the profession; second, legislation suspending the rights of retirement; and, third, the reform of sickness insurance. To relieve the overcrowding, he asks that nations having colonies or protectorates open these for the immigration of young physicians. Relief for the second depends on legislation as to the physicians who are employed by the state or the city in the insurance systems.

In sickness insurance, fees have been greatly reduced: the fee for a consultation is between 10 and 15 cents; for a visit, between 25 and 50 cents; and the number of services that may be given are also limited. Everywhere the conditions of rural practice are constantly becoming more difficult, because the agricultural population has suffered enormously during the crisis.—*Jour. A. M. A.*

DOZEN YEARS ADDED TO AVERAGE LENGTH OF LIFE

Eleven years have been added to the average man's life and 12 years to the life of the average woman, it is revealed by life tables of the U. S. Bureau of the Census.

At the beginning of the present century, the average length of life in the United States was 48 years for white men. Now, these new figures give an average life length of 59 years. For women the average lifetime in 1900 was 51 years. Now it is nearly 63 years.

The added years of life are credited to "improved sanitation, higher standard of living, labor-saving inventions in the homes and the advances made in education and in the science and practice of medicine and surgery."

A surgeon, an architect, and a politician were arguing as to whose profession was the oldest.

Said the surgeon: "Eve was made from Adam's rib, and that surely was a surgical operation."

"Maybe," said the architect, "but prior to that, order was created, out of chaos, and that was an architectural job."

"But," interrupted the politician, "somebody created the chaos first!"—*Monsanto Current Events.*

Original Articles

THE SURGICAL TREATMENT OF PEPTIC ULCER AND ITS COMPLICATIONS

HOWARD K. GRAY, M. D.
Division of Surgery, The Mayo Clinic
ROCHESTER, MINNESOTA

Disregard of certain fundamental principles in the treatment of inflammatory lesions of the stomach and duodenum leads to dire results in many instances and may cast into disrepute those measures which, if properly used, have proved to be of extreme value. In the maze of conflicting reports that have emerged from the pages of medical literature, one is impressed with the sincerity of those observers who advocate diametrically opposed procedures and the tolerant attitude which is exhibited universally in the attempt to obtain a higher percentage of satisfactory results.

It is not to be expected that a satisfactory result will follow in all cases, even with the correct application of those measures which have proved their worth. There is an infinite number of extraneous factors in individual cases, and these factors are not completely understood. This does not justify, however, wholesale condemnation of all surgical procedures for peptic ulcer. There is a tendency to disregard the large majority of patients who have obtained satisfactory results, because one's viewpoint becomes somewhat warped by the unfortunate and not insignificant minority of cases in which secondary or recurrent ulceration has occurred, or cases in which the patients have not obtained a good functional result. As a consequence, a tremendous number of articles which have appeared have emphasized the problem, have contributed to the growing prejudice against surgical treatment, but have offered little toward its solution. A coöperative plan of attack between internist and surgeon has produced remarkable advances in the management of peptic ulcer and should reduce markedly the number of failures.

INDICATIONS FOR SURGICAL INTERFERENCE

Gastric ulcer.—The relationship between benign gastric ulcer and carcinoma of the stomach is highly controversial. Of significance is the fact that in a large number of cases of carcinoma of the stomach the history suggests peptic ulcer and reveals that symptoms have been present a period of years. Of particular significance to the patient is the confession by competent roentgenologists that a small percentage of what seems both roentgenologically and clinically to be typical benign gastric ulcers may prove on microscopic examination to be malignant lesions. On gross examination, the pathologist is frequently uncertain as to the exact nature of the lesion, and obviously the gastroscopist would be subject to the same limitations. From a practical standpoint, therefore, a gastric ulcer should be viewed always with the suspicion of malignancy, and in most instances operation should be advised. Under exceptional circumstances, an attempt may be made to treat the ulcer conservatively, but an adequate indication for surgical interference is the failure of such a lesion to show, in not more than two weeks, definite improvement on roentgenologic examination. There should be complete relief from the symptoms of ulceration, and occult blood must be absent on repeated examination of the stool. Clinical improvement alone is insufficient to rule out the presence of a malignant ulcer, for the inflammatory reaction associated with such an ulcer may respond to the medical management and create in this manner a false sense of security. If the ulcer exhibits evidence of healing, conservative treatment may be carried on safely for an indefinite period provided a competent roentgenologist has the opportunity to determine the status of the ulcer at intervals which should not exceed two weeks.

Not infrequently, a lesion is situated so close to the pylorus that its exact nature cannot be determined. Usually, such a lesion will produce some obstruction to the outlet of the stomach and the question as to the advisability of exploratory operation is answered easily. Intractable pain, particularly pain which extends to the back, may necessitate surgical intervention for relief and as a precaution against perforation. The occurrence of hemorrhage from a gastric ulcer produces a situation which is similar in many respects to that which is produced by hemorrhage from a duodenal ulcer. This will be considered in the comment on the latter lesion.

Uncomplicated duodenal ulcer.—Surgical intervention for any disease may be advised only to relieve symptoms or to protect the patient against illness in the future. Because an ulcer of the duodenum rarely if ever is malignant, sur-

Read before the meeting of the Evanston Branch of the Chicago Medical Society, December 3, 1936.

gical treatment of an uncomplicated duodenal ulcer is never urgent. In many instances, the ulcer apparently heals and remains healed if a properly formulated regimen is followed. Under ordinary circumstances, every effort should be made to control the ulcer in this manner; however, if the degree of disability is great, in spite of treatment, or if the patient cannot carry on for a reasonable time because of occupational or economic reasons, operation may be advised.

Complicated duodenal ulcer.—The most common complications of a duodenal ulcer are obstruction, hemorrhage and the tendency to perforate. Under ordinary circumstances, the occurrence of one or more of these complications warrants surgical intervention, although individualization is essential and arbitrary rules of conduct should not be adhered to. Pyloric obstruction may be noted on roentgenologic examination of the stomach in a case in which clinical evidence of such a condition is lacking. Surgical intervention before marked obstruction occurs will avoid the development of the great thickening and distention which result when the stomach attempts to empty itself against vigorous peristaltic action.

Repeated hemorrhage usually would justify exploration. One must not lose sight of the fact, however, that the source of the hemorrhage may be difficult to determine, and that hemorrhage may recur infrequently in spite of the removal of a lesion which has been incriminated as the source of the bleeding. The occurrence of a mild degree of hemorrhage on one occasion, in the absence of other symptoms, is insufficient evidence on which to advise surgical interference. If, however, hemorrhage recurs in such a case, in spite of every precaution, including rigid medical management and removal of all foci of infection, operation should be advised. Repeated hemorrhage will produce varying degrees of anemia, which may be extremely difficult to correct. Although hemorrhage from a duodenal ulcer is rarely of such proportions as to be fatal, the uncertainty creates an extremely bad mental situation for the patient, and in a large percentage of cases an operation under these circumstances will also protect the patient against the periods of incapacitation which invariably accompany the hemorrhages.

The tendency to perforation is usually made manifest by intractable pain and by roentgenologic evidence of the formation of a crater, particularly if this is associated with an accessory pouch. Extension of pain to the back is suggestive of a penetrating lesion on the posterior wall of the duodenum. Hemorrhage may occur in association with a perforating lesion in spite of a widespread impression that such complications do not exist.

OPERATIVE PROCEDURES

Gastric ulcer.—It is not the purpose of this paper to describe operative technic, but to consider broad principles in the surgical management of benign ulcerating lesions of the stomach and duodenum. In most instances an attempt should be made to remove a gastric ulcer in as safe a manner as possible. If this is accomplished by means of a local excision, a gastroenterostomy also would be performed in order to assist in overcoming the inevitable interference in gastric motility that will be produced by the excision of the ulcer. In certain instances, a midgastric resection may be preferable because of the extent of the lesion. Removal of the greater portion of the stomach is preferable, and the adjacent lymph nodes should be removed if there is any suggestion that the lesion is malignant. It may not be possible to determine this accurately, so that the gross appearance and size of the lesion, the absence or presence of free hydrochloric acid in the gastric contents, and the history and general condition of the patient will have to be considered if resection is extremely difficult. The risk of such a resection may be greater than the possibility of malignancy.

Duodenal ulcer.—The surgical procedures that have been advocated for duodenal ulcer depend on many factors, chief of which are the presence or absence of complications, the age and sex of the patient, the chronicity of the lesion, and the amount of total and free acid in the gastric contents. If the patient is young, if there are no complications, and if the values for the total and free hydrochloric acid in the gastric contents are relatively high, the patient usually should be treated by conservative local excision of the ulcer with a plastic closure of the defect at the outlet of the stomach or by radical resection of a portion of the stomach. Any attempt under these circumstances to follow an intermediate course by performing a gastroenterostomy will result in a relatively high incidence of an ulcerating process in or near the anastomosis.

A patient who is more than fifty years of age, who gives a history suggesting the presence of ulcer for a long period, who has evidence of obstruction to the outlet of the stomach and a relatively low value for the free and total hydrochloric acid in the gastric contents is usually considered a favorable prospect for operation and is a good candidate for a gastroenterostomy. Between these two extremes are many patients who may not be classified in any particular category. One must consider the general make-up of the patient, the economic condition, whether the individual can and will follow advice, the relative risk of various procedures as compared to the possibility of obtaining a satisfactory result with conservative management, and then must attempt to reach an honest opinion as to which procedure offers the most. Promiscuous resection of the stomach for duodenal ulcer does not seem to be warranted. The risk of a fatal outcome with this procedure is probably greater than is the possibility of obtaining an unsatisfactory functional result or a recurrent or anastomotic ulceration with the more conservative surgical measures.

Comment.—There has been developing among physicians who are primarily interested in internal medicine, a gradually increasing prejudice against any operative procedure for duodenal ulcer. This is attributable in large measure to the fear of an anastomotic ulcer and to the risk of the more radical procedures. The series of cases of gastrojejunal ulceration reported in recent years supports the former fear and the mortality justifies the latter. In addition, advances which have been made in the medical management of duodenal ulcer have decreased slightly the number of patients who are favorable candidates for operative treatment. Advances also have been made in the surgical management of duodenal ulcer and the results, as shown in figures of large groups of patients, are most encouraging. This is particularly noteworthy when it is considered that operation is resorted to not infrequently as a last resort when medical management has failed. For this reason, in a relatively larger group of cases which are being seen by the surgeon, the prospects of a satisfactory result are not good. A true impression of the favorable results of operative treatment is not possible when the emphasis is placed with such force on the unsatisfactory results.

CANCER

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"Captain of the Men of Death" is the well earned title of the disease which has come to occupy the center of the stage in one of life's most tragic dramas.

Among the vast organized republic of millions of cells composing our bodies, the process of cell division and cell death proceeds quietly and normally throughout the life of an individual. Some mysterious control exists over this beautiful and delicate balance of normal growth. Suddenly something disrupts this mechanism.

Thus cancer is nothing more nor less than a lawless uncontrolled growth of cells in some part of the body which refuses to obey the natural laws of structure and function. A group of "gangster" cells failing to observe the community interests of their neighbors run riot, invade the surrounding cells and cross boundaries which they should respect. Sometimes these lawless cells are content to invade only their immediate surroundings and never wander to distant parts. These more respectable groups form tumors. They may become quite large but they never break loose and do not travel to distant organs.

Other varieties are more vicious. They are not satisfied with merely invading their immediate neighbors. They break loose, enter the blood steam, lodge in distant organs and there set up other lawless colonies which disrupt the normal function of the body. These are the true cancers.

Exacting a toll of 160,000 lives annually in the United States and ranking second as the principal cause of death, exceeded only by heart disease, cancer has become a major problem of public health in the United States. Unlike other diseases, cancer is not self-limited. Insidious in its onset and steady in its progress, an untreated cancer pursues its relentless course to a fatal termination. It is the absolute certainty of this course of events that renders this disease a tragedy unequaled by any other ailment that affects the body.

Why are we so interested in cancer, and why are we planning such a mass attack upon this enemy? More than 1 out of 10 of all deaths which occur among our men and women are caused by cancer. Among men between the ages

of 55 and 70 at least 1 in 8 deaths is caused by cancer. Of all the women who die between the ages of 45 and 65, not less than 1 in 5 dies of cancer. It is reliably estimated that there are about 400,000 persons suffering from cancer in the United States at any given time. The aggregate loss of life is appalling. The death rate has increased about 65% since 1900. The importance of the subject does not need to be stressed. Its prevalence and the tragic distress associated with its advanced and terminal stages is only too well known to us all.

Although cancer affects men and women of all ages, it seizes man as a rule in the prime of life when the trained mind or hand is at its best and when he is of the greatest value to his family and community. The disease is found wherever man exists. No race is immune. No tissue or organ in the body is exempt.

What causes these cells to depart from their righteous ways and become lawless members of society? This has been well illustrated by an analogy given by Morley Roberts. He asks, what causes a cartridge to explode? *Why* it explodes is that it is struck with a detonator. That is the exciting cause. *How* it explodes involves the entire realm of the physics of matter and the nature of the molecule and atom. So it is with cancer. The *whys* of many forms of cancer are now well known. Cancer of the scrotum in chimney sweeps, cancer of the skin in tar workers and among the cotton spinners of Lancastershire, cancer of the lung among the miners of Joachimstal who were exposed to arsenic and radium dust, cancer of the bladder among dye workers in Germany, cancer of the cheek in betel nut chewers and cancer of the mouth from chronic irritation. These are some of the *whys* of cancer.

Precisely *how* these various agents operate is a far more complicated matter and requires further research. Here the problem revolves about the nature of the cell and the response to its environment. It raises the fundamental question as to how a cell divides to form a new cell, how a newly formed cell is endowed with the property of further growth and division. It attempts to explain how the normal equilibrium between cells is disturbed. The problem is, therefore, very broad and leads us directly to the domains of physiology, chemistry, physics and biology; indeed, back to the very nature of life itself.

From careful studies of cancer in man it is evident that cancer results from a combination of factors. First the individual must be susceptible. This susceptibility is probably inherited. Cancer seems to appear in man as a result of certain external agents operating upon susceptible individuals. The precise manner in which these factors result in the establishment of cancer is just beginning to be understood.

Two recent discoveries in cancer research are of such apparent significance that there is scarcely a cancer research laboratory in the world that is not pursuing these leads. They are the discovery and isolation of certain cancer producing chemicals and the experimental production of cancer of the breast in male mice by means of one of the ovarian hormones. All cancer students agree that these observations are by far the most promising that have developed in the entire history of cancer research.

Is Cancer Curable? Cancer is curable. More people are being cured of this disease than is generally supposed. Patients who have been cured of cancer are reluctant to discuss it. Consequently, we hear more of the failures than of the successes. If it is true that cancer is curable, why does not this happy event occur more often?

The external cancers are both preventable and curable. These include cancer of the skin, lip, mouth, cervix and certain cancers of the throat. In spite of these facts, 60,000 men and women die each year in the United States of these external cancers. The internal cancers, such as cancer of the lung, stomach, intestine, liver and kidney yield not more than 10% cures largely because, failing to produce early symptoms, they make themselves evident only in their later stages after the disease has spread too far for complete eradication by our present methods of treatment. We do not have today any blood test for the detection of early cancer. One hundred thousand deaths occur every year in the United States as a result of internal cancer.

The last ten years, and more notably the last five years, have witnessed important advances in treatment and marked improvement in results in certain types of cancers. More powerful x-ray and radium apparatus and especially a better understanding of the basic principles by which these agents act upon cancerous tissues have revolutionized the technique of radiation and enhanced the possibilities of cure.

Thus far these advances have occurred only in the domain of external cancers which account for one-third of all deaths. There is some hope that the application of the new principles and techniques may also make some inroads into the larger group of internal cancers which account for two-thirds of the deaths.

In general it may be said that for the external cancers, x-rays and radium in expert hands accomplished 80 to 90% cures in early cases and 10 to 20% cures in advanced cases. These are some of the triumphs of radiation in the past ten years. This progress has not been easy nor rapid. On the contrary, it represents the most painstaking efforts of closely coordinated and perfectly organized groups of scientists over a period of almost twenty years.

When we consider internal cancers the picture changes. The cures in this group probably do not exceed 10%. Efforts to devise tests for the detection of internal cancers in their early stages and researches into the fundamental causes with the hope of prevention constitute important fields of cancer research.

What Do We Mean by Cancer Research? Cancer research may be divided into two parts: 1. *Clinical* research which has to do with the study of cancer as it appears in the patient. In pursuing this type of research one must utilize all sorts of laboratory aid, pathological, serological, chemical and biological. 2. *Experimental* research. This type of investigation has to do with studies of the nature of cancer and its causes.

The following examples are given to illustrate different phases of these two forms of research.

Clinical Research. The most important progress in the treatment of cancer during the last ten years has occurred in the fields of x-rays and radium. These agents have replaced surgery in certain forms of cancer and there are indications that other forms now requiring extensive operations may yield to these advances. Thus it is obvious that a department for radiation is in effect a center of clinical research. It must be equipped with the latest x-ray machines and radium apparatus. It must be manned by a highly trained personnel. It must have adequate facilities for diagnosis, treatment, follow-up examination and hospitalization. (Above all, it must be in a position to select (for study) those types of cancer which are under investigation regardless of the patient's ability to pay for expensive treatment or the necessity for prolonged free hospitalization. This department of clinical research has fully proved its value by the practical contributions it has already made to the curability of cancer. Of all the departments of clinical research this is the most active and most promising.

Experimental Research. Are we any closer to the explanation of the fundamental causes of cancer today than we have been in the past? Before attempting to answer this question it must be admitted that there are those who consider the fundamental causes of cancer to be so intimately bound up with the process of normal growth that they compare the solution of the fundamental causes of cancer to the explanation of life itself.

The majority of students of the subject however, hold a more optimistic point of view which they believe is justified by the history of the progress of medical research. Seventy years ago the cause of sepsis was as obscure as the cause of cancer is today and the discovery of insulin is only a recent event. As we study the progress of science we learn that the solution of certain problems awaits developments in related fields. Thus Lister's contribution to asepsis awaited Pasteur's discovery of living microorganisms.

About 160 years ago Sir Percival Pott of England discovered that cancer of the scrotum was common among chimney sweeps. Years later it was found that the workers in the cotton spinners' industry in Lancastershire developed cancer of the skin where they were spattered with mineral oil by the revolving spindles. Soon afterwards it was noted that workers with tar and pitch developed warty growths on the hands which later turned into cancer. About twenty years ago two Japanese workers painted the ears of rabbits with tar and produced cancer of the skin experimentally. Thus it was observed that there was something in tar and pitch which had the property of producing cancer. What was this agent?

A group of chemists, chiefly in London, began to search for the underlying chemical agent. During the last three years their efforts have been crowned with success, for they have not only isolated the highly potent cancer producing chemical agents from tar but have succeeded in producing these chemicals synthetically in the laboratory. Of equal importance are the recent

experiments in which cancer in animals has been produced experimentally by the injection of certain hormones.

These two lines of research—the identification of cancer producing chemicals and cancer producing hormones—are now merging, since recent experiments seem to indicate that the underlying chemical factor responsible for the stimulus to abnormal growth may be the same.

Cancer Institutes. As early as 1792, Mr. S. Whitbread provided words in the Middlesex Hospital, London, for the reception of sufferers from cancer where, in the founder's happy phrase, they could remain until "relieved by art or released by death."

Cancer authorities and accredited cancer organizations have committed themselves to the policy of special cancer institutes and advise the establishment of a limited number of such units in the larger cities.

Actually, there exist in the United States today only three such organizations. Limitation of funds and inadequate personnel have been responsible for this deficiency. The development of special departments or tumor clinics in general hospitals on a comprehensive scale has also been retarded, chiefly by the scarcity of trained specialists.

These circumstances place us in the uncomfortable and unfortunate position of being unable to offer to most cancer patients the advantages of knowledge already gained and the results of recent progress. It has become perfectly obvious that the facilities for the modern treatment of cancer in this country are lamentably inadequate.

Some years ago the Rockefeller Foundation considered the advisability of assuming a greater interest in the cancer problem. After due consideration they decided that the possibilities of the problem at that time did not warrant this procedure. Important advances in diagnosis and treatment and the discovery of highly suggestive leads upon the fundamental causes of cancer during the last few years have combined to force a change in this attitude. It is, therefore, not only of interest but of considerable significance that the Rockefeller Foundation has this year alloted several million dollars to the Memorial Hospital of New York for the building of a new cancer institute. This gift at once implies an endorsement of the progress which has been made in this field, an expression of confidence in its future possibilities and a recognition of cancer today as a major field of medical activity.

Aims of a Cancer Institute. The aims of a cancer institute may be separated broadly into three divisions: treatment, education and research. *Treatment.* (including diagnostic facilities). In a large general hospital composed of many departments, any specialty is in losing competition for space, equipment, personnel and funds with the major services of medicine and surgery. This is particularly true of cancer in which the requirements are especially exacting. General hospitals have not given the subject of cancer the consideration which it deserves and requires in order that it may develop and contribute fully to its own advancement.

Individual authorities and accredited organizations are thus in unanimous agreement that the most advanced form of cancer service is that provided by special cancer institutes where opportunity is provided for diagnosis, treatment and the collection of precise data. In such specialized institutes carefully controlled experimental trial of new methods and techniques can be easily conducted and the results made available to the entire medical profession.

Progress during the past five years has been such that radium and x-rays have replaced surgery in the treatment of certain operable forms of cancer. The result is that the surgeon is no longer the sole arbiter of the eventual cure of the cancer patient. The treatment of cancer has, therefore, ceased to be the function of an individual and has become the work of a group consisting of a surgeon, an x-ray specialist and a radium specialist. It is the need of collaboration of scientists and the necessity for team work which has resulted in the organization of special establishments dedicated to the treatment of cancer.

The second indication for these special organizations is the necessity of a complex and costly equipment, a large amount of space and a highly trained personnel.

The customary tendency of the surgeon or the x-ray or radium specialist working alone towards a cancer patient is to overestimate the value of his own method. When these three specialists work together their attitude is different. They will at once subordinate the prestige of

their particular method to the sole consideration of giving to the patient the best treatment that the circumstances permit.

Are the advances made with x-ray and radium in the treatment of cancer sufficient to warrant the creation of such establishments? Professor Claude Regaud, Director of the Curie Institute of Paris, states:

"The substitution of radiological methods for surgical removal in a certain group of cancers is a conquest of science which of itself justifies the building of special establishments dedicated to its practical application under the most perfect conditions obtainable. The extension of its progress to other types of cancer is a reasonable expectation.

"The perfection of the treatment is a condition of absolute prime importance. The first radium or x-ray treatment like the first surgical operation on a cancer has a character of fatality. It is decisive for cure or for death.

"The perfecting of service to the cancer patient demands a personnel of great experience, a costly equipment and a considerable amount of installation. It is, therefore, evident that such etstablishments for the treatment of cancer cannot be multiplied.

"Surgeons and radiotherapeutists who undertake to treat curable cancers assume an exceptionally heavy responsibility, because the unique stakes which they play are the life of the patient himself. If these thoughts constantly haunted—as they should—the spirits of those who occupy themselves with the treatment of cancer, the effort of organization of this branch of medicine would be indicated by the quality and power of the institutions and not by their number."

In 1929 a special committee of the American Society for the Control of Cancer reported upon the question of cancer institutes as follows:

"We have been forced to conclude that the treatment of many major forms of cancer can no longer be wisely entrusted to the unattached general physician or surgeon or to the general hospital as ordinarily equipped but must be recognized as a specialty requiring special training, equipment and experience in all arms of the service. We feel that the future development of cancer therapeutics will develop along the lines of concentration, organization and specialization. This view is by no means new. It is well known that the most conspicuous progress in the treatment of cancer has always been accomplished by specialists. *We recommend as an ideal well within the possibility of accomplishment the establishment of a limited number of cancer institutes. They should be located in large cities, be prepared to give the best modern treatment and offer facilities for research and education."*

Education. Education involves dissemination of knowledge regarding various aspects of cancer among the general public, education of the practicing physician and the training of cancer specialists.

1. Education of the Public: The dissemination of correct information regarding the early signs of cancer is the function of specially organized groups. In America this phase of cancer control is admirably cared for by the American Society for the Control of Cancer. The presence of a cancer institute serves as a center for public education and raises the level of knowledge of the population in the immediate and surrounding communities. By cooperating with existing agencies, a cancer institute makes a direct contribution to public education.

2. Education of the Physician: Although the knowledge of the physician regarding cancer has improved somewhat in recent years, it is still wholly inadequate. It has been reliably estimated that a practicing physician in an average community sees but three cancer patients in the course of a year. To him, cancer is a hopeless disease. Since the general physician is the keystone to cancer control it is of the greatest importance to set up the necessary machinery to overcome this deficiency. A more thorough training of medical students, increased attention to the subject in medical societies and frequent graduate courses in cancer are the available methods. A cancer institute at once becomes the center for these activities.

3. Postgraduate Training: Pending the establishment of an adequate number of cancer institutes and tumor clinics in general hospitals, a large proportion of the 400,000 cancer patients in the United States will continue to be treated at or near their homes. The responsibility of the care of these patients rests with surgeons, radiologists and pathologists. All three specialists are in great need of direction. There are no organized facilities in this country to cope adequately with this problem. It should be one of the prime aims of the institute to formulate a comprehensive program to meet this need. When it is recalled that in the treatment of cancer the question of cure or death rests solely with the skill of the specialist and that the first treatment by a surgeon or a radiologist seals the patient's fate, the emergency which exists is at once obvious.

A program to meet these needs must include:

1. Postgraduate courses for physicians already engaged in the treatment of cancer. This work must include courses in tumor pathology to render pathologists more competent in the

interpretation of early and borderline tumors and cancers. It should also include courses to those in charge of x-ray and radium treatment in various hospitals in order to familiarize them with the rapid advance in the use of these agents. There is an increasing demand on the part of the pathologists and radiologists for postgraduate opportunities.

2. The training of cancer specialists. This is best accomplished by the creation of fellowships for special training of young men with exceptional qualities and possibilities as cancer specialists. The Rockefeller Fellowships established in 1926 in the Memorial Hospital are an excellent example. There are many brilliant and promising young physicians in this country keenly interested in the cancer problem seeking opportunities in this field. Available fellowships do not begin to meet this demand.

Research. Cancer research may be divided broadly into two categories: clinical research and experimental research.

Clinical Research or the investigation of cancer as it is seen in the patient, includes also laboratory research undertaken to solve practical problems in diagnosis and treatment. Examples of clinical research are statistical studies upon such questions as heredity, efforts to devise diagnostic tests for early cancer, and the development of principles and technique of the application of x-rays and radium. This last type of research has already fully proved its value by the practical contributions it has made to the curability of cancer.

Experimental Research is concerned with an investigation of the nature and underlying causes of cancer. Although we are in possession of considerable data relating to the contributing causes of cancer, the ultimate cause of this disease remains an unsolved mystery. This type of research, dealing as it does with the fundamental problems of causation, is wide in its scope. It must necessarily extend into the domains of physics, chemistry, and biology. The program must be long-ranged. It must be undertaken only with the understanding that progress may be slow, that the ultimate solution may be distant but that each truth established may be the very link needed for the final solution of the problem. This type of basic research must go hand in hand with clinical and pathologic research and must be conducted in an institute where adequate clinical material is available. It is essential that both branches of research be pursued simultaneously and in close cooperation, for each stimulates and helps the other.

Principles of Organization. Three circumstances have combined to stimulate interest in special institutes.

1. Renewed interest and activity in the cancer problem, resulting from recent progress in the field of cancer.

2. Urgent need of a cancer institute planned and organized upon a conception essentially different from existing organizations and in keeping with the present state of the cancer problem.

3. The availability of some of the recognized authorities of America and Europe to participate in this undertaking—a unique and unparalleled opportunity created by the unsettled European situation.

It should be the dominant spirit of such institutes that all considerations be submerged in favor of the purpose of the organization, namely, *unhampered and unrestricted opportunity for freedom of thought and action in all scientific endeavor.* In order to accomplish this purpose the organization must be based upon the following principles:

1. The institute must be completely equipped and adequately endowed in order that the cancer patient may be given the benefit of the latest developments in x-ray and radium technique and that further developments in technique may be possible and in order to permit the upkeep of equipment and adequate personnel necessary for clinical radiotherapeutic investigations and research.

2. The organization must be small but perfect. It must recognize the unhappy effects of size which carry in their wake the complications of overgrowth and over-organization which so often stifle and defeat the very purpose for which an organization is intended.

3. The staff of the institute must be chosen with the realization that upon this selection alone depends the success or failure of the project; that neither the building nor the size of the endowment but the background, training, experience, spirit, imagination and idealism of the leaders and their associates will be the determining factors.

4. The growth of the institute must be con-

trolled and limited solely by its scientific contributions and accomplishments.

What May Be Reasonably Expected from a Cancer Institute Organized Along These Lines?

1. A reduction in mortality through earlier diagnosis and more effective treatment resulting from education of the public and the medical profession, the training of specialists and the development of improved diagnostic and therapeutic methods.

2. Progress in our knowledge of the nature of cancer and its causation through clinical, pathologic and experimental research.

3. A contribution to the control of cancer, if not through sensational discoveries, then by a steady increase in our knowledge in the fields of cancer diagnosis, treatment, research and education.

THE GILLIES OPERATION FOR CORRECTION OF DEPRESSED FRACTURE DEFORMITIES OF THE ZYGOMATIC-MALAR BONES

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The management of fractures of the zygomatic-malar bones has always been given very minor consideration in the surgical literature. In most text-books, a few lines or a short paragraph is allotted to cover the entire subject. And unfortunately, the advice given has often left much to be desired.

Fracture of the zygomatic-malar bones produces one of the most common boney deformities of the face. The injury nearly always follows inward force against these bones applied from an exterior blow. Since thhe zygomatic arch is thinner, it is more often broken than the malar bone. However, fractures of either portion or a combination of both may occur.

Symptoms and Diagnosis. Since we are dealing with a depressed fracture, we always note a flattening of the cheek and an absence of expression on the affected side. If too much edema obscures this symptom, it can usually be found by palpation. Ecchymosis and tenderness are always found over the depression. One nearly always sees an irregularity of contour beneath the infraorbital ridge.

It may be further observed that the mandible is thrown towards the opposite side. Since the masseter muscle lies beneath the depressed bones, pain and difficulty in moving the lower jaw are quite characteristic.

The fracture is further identified by correct x-ray examination. These films will readily show the injury if a vertico-mental view, with the rays centered at right angles to the vertex, is made. The case illustrated (Figure 1), demonstrates this view quite nicely.

An alternative x-ray technique is carried out by the reverse procedure. With the film held on top of the patient's head, the rays are exposed from below. The head should be tilted slightly away from the injured side so as to make the

Fig. 1. (Left) Depressed comminuted fracture of zygomatic arch.

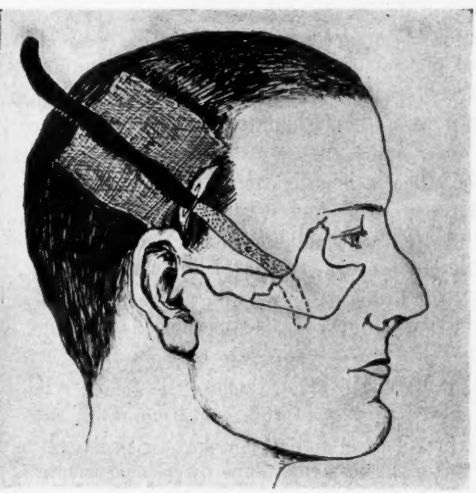

Fig. 2. (Right) Illustrating technique of operation. (Taken from Gillies.)

arch stand out from the lateral border of the skull. This of course, does not give a symmetrical view of both sides, but it will demonstrate the depression of the affected side very clearly.

It must be admitted, however, that with either technique, an occasional linear fracture without displacement may be overlooked, but the depressed variety, the type in which we are chiefly interested, always stand out very clearly.

Treatment. The early treatment of depressed fracture deformities of the zygomatic-malar bones has, in America, usually been carried out by one of two methods.

The first method consists of inserting a hook or threading a fine wire beneath the arch through the overlying facial skin. If the impaction is not too great, the fragments then may be elevated into normal position. The hazard of having the hook break off and become dislodged into the depths of the wound must not be overlooked, —indeed an embarrassing accident.

The second method may be criticized for disregarding one of the fundamental principles of plastic surgery, that is, to avoid creation of further defects to be added to the original deformity. The technique referred to is briefly that of open reduction by incisions through the cheek.

The third method of choice and the chief reason for the presentation of this paper, is that devised by Sir Harold Gillies of London. Although Gillies first described his method nearly ten years ago, there seem to be few surgeons in this country who are familiar with either its existence or the steps involved.

Preferably under general anesthesia, a small curved incision is made under aseptic technique through a shaved area in the temporal region. (Figure 2.) This should be made within the hair line, where the resulting scar will not be visible. The incision is carried down to the temporal fascia. The wound edges are then retracted while another small incision is made through the temporal fascia, thus exposing the temporal muscle. Through this opening a long thin elevator is passed downwards superficial to the temporal muscle until it comes to lie deep to the depressed zygomatic-malar bones. To those who have never performed this operation, they will be surprised to find that the elevator practically falls down through this plane by its own weight. Certainly, no force is necessary to place it and furthermore it is practically impossible for the instrument to go in any but the desired direction.

Having once placed the elevator under the depressed bones, the scalp above the wound is then protected to prevent injury to either the overlying soft tissues or the skull beneath. Then, with the fingers of the opposite hand placed over the fractured area to follow the progress of the reduction, by simple levering movements the fragments can be quite easily manipulated into the corrected position.

In cases of old healed deformities, a smiliar technique may be followed, by first re-fracturing the bone with a thin bladed chisel passed through the temporal incision. The fragments can then be manipulated into the normal position as described above.

Having once reduced the fracture, it will stay there without additional aid because there is no muscular pull to displace it.

The temporal wound is closed without drainage with a few interrupted sutures and a sterile dressing applied.

Firm boney union in the fracture usually develops within three weeks.

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HUGE RETRO-VESICAL MYXOMA

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The myxomas are uncommon tumors, and may be found in subcutaneous tissues, submucous tissues, nerve sheaths, subserous or elsewhere. Many myxomas are sometimes classed as myxomas, but are in reality fibromas, or lipomas undergoing mucoid degeneration. The rarity of pure myxomas has led to the assertion, that such a growth does not exist, and certainly many so-called myxomas have been, in truth, merely the product of extensive mucoid degeneration in a fibroma or lipoma or other variety of connective tissue neoplasm.

Delafield states, "There is but little doubt that a true myxoma may occasionally be encountered."

Such tumors are usually jelly-like and translucent, and present great variation in microscopic appearance. They contain a mucin-like stroma with triangular branching cells, spindle cells and some of them irregular branching cells, the intercellular material containing mucoid

substance, and in some places look microscopically like umbilical cord. Very often as in our case, as seen in the photograph, they contain a large multilocular cyst and sanguineous fluid with encapsulated connective tissue, or covered with peritoneum and, as in our case, abundantly supplied with blood vessels.

Sometimes a large fibroma looks like a myxoma by degeneration which is caused by circulatory disturbance, and therefore the fibroma be-

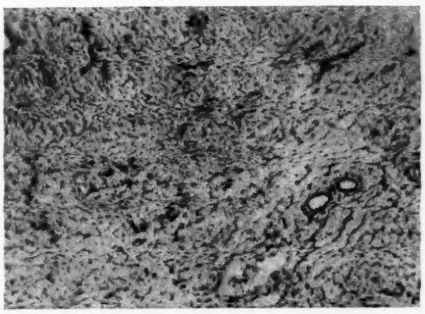

Fig. 1. Microphotograph of myxoma. Mucoid like stroma with spindle and stellated cells.

comes edematous, which causes dilatation of the lymph spaces, and this picture might be mistaken for a myxoma.

History of a Case. This patient was thirty-six years of age and had been ill for the past three years suffering from abdominal pain. Her menstruations were

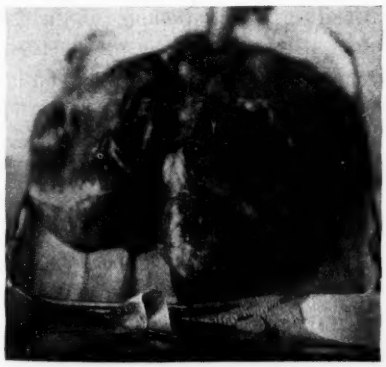

Fig. 2. Photograph of myxoma weighing 5,426 grams.

normal, and her abdomen had progressively enlarged. There were no urinary symptoms.

Physical Findings. Slight systolic murmur; slight enlargement probably due to a circulatory disturbance from pressure symptoms. The appearance of the abdomen was that of an ascites or a twin pregnancy. No free fluid could be demonstrated. By external palpation part of the abdominal wall appeared fluctuating, while other portions had a firmer consistency. The bimanual examination revealed a normal uterus, retroflexed with a small fibroid the size of an egg. The uterus was compressed to the rectum. On both sides of the parametrium some soft cystic mass could be felt which extended to both lateral walls and abdomen, completely fixed on the lateral abdominal wall. It was immobile, and external examination feels that this tumor grows up to the diaphragm. It could have been a huge ovarian cyst, although we could not make a diagnosis and locate its origin from the ovary.

Surgical Findings. On opening the abdomen a huge mass presented itself. One side of this mass was hard and the other side consisted of a multilocular cyst varying in size from that of a grapefruit to that of a small egg. One or two of the larger ones were opened with a trochar when it was evident that the lower part of the tumor was extraperitoneal. When the cysts were opened the peritoneum was entered from the side, and we were able to reach beneath it and elevate the tumor. After the tumor was lifted out, and reflected between the legs, we could then see that this tumor started from the posterior wall of the abdomen, growing between the two parametrii to both lateral walls of the abdomen, lifting the peritoneum with it and extending to both sides of the diaphragm. The whole tumor is covered with peritoneum. There were no adhesions between the surface of the tumor and the abdominal contents. We reflected the tumor back to the leg of the patient, and then we could see the uterus with a small fibroid on the right side. Both ovaries were normal, the tubes were both normal and the anterior surface of the uterus was normal also. There was absolutely no connection of this tumor to the tubes or ovaries, so this tumor originated in the connective tissue of the parametrium, and the posterior wall of the bladder. By operation, we dissected the posterior wall of the bladder from this tumor. The line of cleavage was easily found between the tumor and the posterior wall of the bladder. After opening both the parametrii, a great number of blood vessels supplying the base of this tumor were ligated and then it was easy to shell out the half cystic and half solid masses from both parametrii and from the lateral abdominal wall, so when the tumor was removed we could easily suture both layers of parametrium, and attach the bladder anteriorly by using a flap of peritoneum left on the bladder.

This patient made an uneventful recovery.

Pathological Report: (Dr. Laurence E. Hines).

Gross. Huge lobulated mass 32x26x24 cm. weighing 5426 gms. There is an ill defined capsule broken in many places. Approximately two-thirds of the mass is solid gelatinous, translucent substance, partly pale grey, partly purplish brown. The other third is cystic like communicating cavitations containing a small amount of blood stained fluid.

Microscopic. The bulk of the solid tumor is typical of vascular myxoma with spindle and star shaped cells in an abundant basophilic matrix. In parts of the tumor are found more cellular areas of fibroblastic cells arranged in the fashion of ovarian stroma. No

ovarian follicles are present. No part of the tumor appeared maligant.

Pathological Diagnosis. Retroperitoneal myxoma.

Conclusion.—A case of retroperitoneal myxoma resembling clinically a huge ovarian tumor is reported.

55 E. Washington St.

THE USE OF PHYSICAL THERAPY IN GENERAL OFFICE PRACTICE

A Report of 734 Cases

H. P. Miller, M. D., F. A. C. S.

ROCK ISLAND, ILLINOIS

We have been using physical therapy in the office extensively for four years during which time 682 patients have been treated on 734 different admissions. Many of these patients received a series of treatments, so that the number of treatments administered total 7586. The purpose of this article is to study and classify these patients to find out what results we are getting from physical therapy in order to seek justification for its use, both from the standpoint of expense to the patient and its value as a form of treatment.

This report is a study of a consecutive series of 682 patients, covering a period from May 21, 1934, to October 1, 1936, or approximately two and one-half years. Below is a table (Table 1) summarizing the entire series as to diagnosis, relative frequency, and results. Those cases classified as "treatment discontinued" were either discontinued by us because the result was unsatfactory, the patient stopped coming either because of unsatisfactory result or because they hesitated to incur the financial burden of treatment, moved away, or because of intercurrent acute illness whcih rendered them unable to report to us. Subdivisions under the primary classification table will be discussed separately.

Each patient, before being subjected to treatment, submitted to a complete history and physical examination with a minimum standard amount of laboratory work, consisting of a urinalysis, red count, hemoglobin, white count, sedimentation time, Kahn test in every new patient, unless the acute nature of the illness prohibited such an examination or the obviously local nature of complaint made it unnecessary. Case notes were kept by dictation to a nurse at the time of check-ups to determine the result of therapy. A nurse technician has been trained for several years in the administration of physical therapy.

TABLE 1

Disease Group	Number	Improved	Cured	Unrelieved	Treatment Discontinued	Not Complete
Rheumatic	174	106	31	13	22	2
Traumatic	105	32	65	1	7	..
Nervous functional	71	47	5	7	10	2
Respiratory	64	31	27	4	2	..
Skin	62	23	34	2	2	1
Structural	57	34	9	2	12	..
Postoperative	49	20	22	2	..	5
Vascular	47	37	4	..	6	..
Nervous organic	31	14	8	1	8	..
Gastrointestinal	29	19	1	5	3	1
Surgical infections	19	5	12	1	..	1*
Miscellaneous	26	13	6	5	2	..
	734	381	224	43	74	12

*To hospital.

Table 2 shows the relative frequency or popularity of the various modalities in our work:

TABLE 2. TYPES OF TREATMENT

Massage	4143	Bristow coil	465
Diathermy	3205	Cupping	418
Infra-red	2791	Galvanism	343
Ultraviolet	2497	Autocondensation	260
Photo therapy	1848	Vacuum electrode	153
Hot packs	1326	Relaxation (Jacobson)	143
Vibrations	956	Colonic irrigation	81
Sinusoidal	640	Saturation bar	19

The relationship of mind and body and the importance of functional abnormalities, such as posture, environmental and emotional factors, work, rest, glandular disturbances are taken into account and correction attempted in the management of a patient's recovery. For example, a patient may come in with chronic appendicitis and at the same time have well marked symptoms of a psychoneurosis. If one is too surgically minded and considers only the appendix and removes it, one still has a sick patient who has not recovered completely after the diseased appendix is removed, because the functional factor has not been treated. Again, a patient may have a functional disturbance resulting from poor posture causing referred pain or a functional glandular disturbance which must be adequately treated if we are to obtain relief from all symptoms. The greatest part of our medical training has been from a structural or organic disease standpoint, and many failures in handling patients result from such an attitude of ignoring or inadequately treating functional disturbances.

With this idea of comprehensive treatment, we

cannot rely on drugs alone, or surgery alone, because it is rare in an examination of the chronically ill patient not to find five or six secondary diagnoses in addition to the primary. These secondary diagnoses are most influential and often require other therapeutic armamentaria besides drugs and surgery.

Unconsciously in the past, we have used many physical agents without regarding them under the name of physical therapy, such as the mustard plaster, the hot moist application, the use of liniments with their associated massage, the use of exercise, hot soaks, baths, visits to sanitaria. The stimulus from legitimate advertising by commercial concerns has directed attention to the subject. Medical journals are filled with advertisements of various types of diathermy machines, fever machines, vaginal heat treaters, various forms of lights. All of these instruments have their place in the field of physical therapy. Their relative importance is determined somewhat by the type of practice in which the doctor is engaged.

Physical therapy is not a specialty, or at least it should not be, because it is a branch of therapeutics with certain measures applicable in each of the specialties and also in general practice. Each group should master and apply those modalities from which it can obtain value in its type of work. Therefore, in our office, we felt our way slowly, adding physical therapy apparatus for treatment only where a definite need of a new modality was indicated after we had made ourselves familiar with its applications and limitations.

Our scientific apparatus now consists of two diathermy machines of the ordinary wave length type, a sinusoidal and galvanic current Wantz generator, a galvanic wall plate, several hand therapeutic lamps, a large phototherapy lamp, an ultraviolet lamp, a Bristow coil, a high frequency electrode, an autocondensation couch. I can see no reason at the present for changing to short wave machines in view of a recent conservative report of Kovacs.[1]

The nurse technician in charge of the work keeps the records and case notes and cooperates closely with the physician in managing the patient. No case is submitted to her for physical therapy without a diagnosis. A record card with the diagnosis thereon is filled out and kept in a card index. It stimulates the interest of the nurse to know the physician's diagnosis and to have an understanding of the indications for treatment which she is carrying out. Case records kept on a simple card make material for study of results, and when reviewed, help to crystallize in the physician's mind his opinion concerning the value of the procedures used in treating certain types of disease. In order to have close liaison between nurse and physician, patients must be seen frequently, daily in some cases, but at least once a week in more chronic types of patients and where a less frequent interval will give a better perspective as to results. The human element evidenced in the form of a physician who understands the principles involved plus a skilled technician devoting full time and interest to her work, carrying out the physician's prescriptions, I think is the most important single factor in the successful use of physical therapy.

Our experience in this locality with our type of practice is that the psychoneuroses make up a major or secondary diagnosis in 50% of patients seen.

TABLE 3

Nervous Functional	Number	Improved	Cured	Unrelieved	Treatment Discontinued	Not Complete
Psychoneurosis	28	19	2	3	4	..
Neurosis of colon..	26	21	1	1	3	..
Neurasthenia	9	3	..	1	3	2
Coccydynia	6	3	2	1	..	..
Constitutional inferiority	2	1	..	1	..	..
	71	47	5	7	10	2

Table 3 above shows the sub-groupings in this category with the results of treatment. We can relieve these people, but 47 out of 71 improved show that cure, in our experience, is rare. The best approach to these patients for the doctor not especially trained or limiting his work to psychiatry is primarily on the plan of reassurance, persuasion and physical therapy. Drugs are only of temporary value, usually in the form of bromides and phenobarbital. Physical therapy usually takes the form of phototherapy, tonic ultra violet radiation with sedative or stimulative massage. Galvanism and diathermy are often helpful in the paresthesias and neuralgic pains of which these patients have many.

We have noticed a definite seasonal incidence in the types of patients to whom physical therapy is of use. In the spring and fall, an influx of

arthritic cases and head colds occur, or we may see a string of four or five herpes zoster cases. Acute head colds are treated by neosilvol packs and exposure to the phototherapy lamp for one-half hour with atropine internally. The herpes respond well to ultraviolet light. The first icy spell brings a crop of fractures with their necessary physical therapy. A spell of hot weather will bring in quite a number of acute fibrosites, sore shoulders, wrynecks and various muscle pains and catches due to lying exposed at night to a draft blowing in from open windows.

The three largest classes of patients that we have to treat are the rheumatics, the traumatic cases and the functional nervous group, as seen from Table 1. In the rheumatics, physical therapy in justice to the patient can certainly not be left out. A well rounded regime of diet, rest and therapeutic exercise, drugs of the anodyne type, diathermy and skilled massage to eliminate areas of fibrositis and adhesions around joints will improve a high enough percentage to make it very much worthwhile. According to Table 4, 61 out of 79 cases were either relieved or cured.

TABLE 4

Rheumatics	Number	Improved	Cured	Unrelieved	Treatment Discontinued	Not Complete
Arthritis	79	58	3	8	9	1
Myositis	69	33	25	2	9	..
Periarthritis	14	6	2	3	3	..
Sensitive deposits	9	7	..	..	1	1
Torticollis	1	..	1	..	..	..
Lumbago	1	1	..	..	..	..
Bursitis	1	1	..	..	..	..
	174	106	31	13	22	2

Our ambulatory fracture cases receive physical therapy very early at the office. In the Colles' fracture, the anterior and posterior splints are removed the second day, and relaxed motion with sedative massage is started with daily treatments thereafter, as recommended by Mennell.[2] In the average case with a good reduction, all splints are off and the patient has full use of the hand in three weeks. Other types of fractures are treated very early, in most cases by simple baking, massage and muscle stimulation by the Bristow coil. Other types of trauma are a favorite field for physical therapy, as shown in Table 5.

Low back conditions make up another secondary group not as large as the above three. After a thorough physical and x-ray examination to rule out other organic trouble, these cases usually

TABLE 5

Traumatic	Number	Improved	Cured	Unrelieved	Treatment Discontinued
Fractures	40	14	25	1	..
Sprains	27	4	18	..	5
Lacerations	14	3	9	..	2
Contusions and abrasions	10	3	7	..	..
Burns	5	2	3	..	..
Dislocations	4	1	3	..	..
Foreign bodies	2	2	..	..	..
Severed tendon	1	1	..	..	..
Severed nerve	1	1	..	..	..
Sunburn	1	1	..	..	..
	105	32	65	1	7

are treated by infra-red, followed by diathermy, then stimulative massage, dry cupping and muscle contractions, and an adequate support is of course fitted. Manipulative treatment is also used. With this combination, a very unsatisfactory type of case is relieved, as seen in Table 6, in which group we have included flat feet and poor body mechanics cases which will aggravate or tend to produce low back pain.

TABLE 6

Structural	Number	Improved	Cured	Unrelieved	Treatment Discontinued
Weak feet	33	21	4	..	8
Sacroiliac strain	17	8	5	1	3
Poor body mechanics	4	2	..	1	1
Lumbosacral strain	3	3	..	..	..
	57	34	9	2	12

All open wounds, ulcers, boils, localized infections, etc., receive one-half hour of infra-red with ultra-violet for stimulation of wounds where indicated before the dressing. The results are shown in Table 7.

TABLE 7

Surgical Infections	Number	Improved	Cured	Unrelieved	Not Complete
Extremities	17	5	11	..	1*
Abscess—breast	1	..	1	..	..
Fistula in ano	1	..	..	1	..
	19	5	12	1	1

*To hospital.

Fresh industrial wounds are soaked in soap solution and baked with infra-red, avoiding the use of any antiseptics, as recommended by Koch.[3] We have found very satisfactory healing free from suppuration using this method.

The field of skin disease is a large one, as the number of cases in Table 8, below, shows and the results are highly satisfactory as shown by the few unrelieved or the patients on which treatment was discontinued.

TABLE 8

Skin	Number	Improved	Cured	Unrelieved	Treatment Discontinued	Not Complete
Furunculosis	20	7	12	..	1	..
Dermatitis	16	9	5	..	1	1
Herpes	15	3	11	1	..	..
Acne vulgaris	4	3	..	1	..	..
Impetigo	3	..	3	..	..	..
Erysipelas	2	1	1	..	..	..
Erythema nodosum	1	..	1	..	..	..
Pruritis estivalis	1	..	1	..	..	..
	62	23	34	2	2	1

The use of the combination of drugs and physical therapy in respiratory disease has been popular in shortening duration and relieving symptoms.

TABLE 9

Respiratory	Number	Improved	Cured	Unrelieved	Treatment Discontinued
Rhinitis	21	10	9	2	..
Bronchitis	16	10	5	..	1
Sinusitis, acute	11	2	9	..	..
Asthma	5	5	..	..	..
Tonsilitis	5	1	4	..	..
Tuberculosis	5	2	..	2	1
Bronchiectasis	1	1	..	..	..
	64	31	27	4	2

Postoperative cases are listed in Table 10 and consist of surgical cases which need special building-up after operation for loss of weight, poor appetite, anemia, persistent drainage, etc. They receive ultraviolet light and generalized massage.

TABLE 10

Postoperative	Number	Improved	Cured	Unrelieved	Not Complete
Postoperative treatment	46	18	22	1	5
Adhesions, postoperative	3	2	..	1	..
	49	20	22	2	5

The ultraviolet light has been a valuable aid in the chronic conditions associated with secondary anemia. Pernicious anemia also receives this aid. The hypertension cases shown in the vascular group have responded temporarily at least to autocondensation in a high percentage.

TABLE 11

Vascular	Number	Improved	Cured	Treatment Discontinued
Secondary anemia	23	15	3	5
Hypertension	20	18	1	1
Pernicious anemia	3	3	..	..
Buerger's disease	1	1	..	..
	47	37	4	6

The gastrointestinal group is shown in Table 12. In visceroptosis and intestinal stasis, measures are used to build up the abdominal muscles by massage and sinusoidal contractions to the abdomen.

TABLE 12

Gastrointestinal	Number	Improved	Cured	Unrelieved	Treatment Discontinued	Not Complete
Visceroptosis	9	7	1	..	..	1
Intestinal statsis	4	2	..	1	1	..
Ulcerative colitis	2	..	..	2	..	..
Ulcer, peptic	2	2	..	..	..	..
	17	11	1	3	1	1

In the genitourinary field, the only thing we have treated consistently has been the enlarged prostate. Twelve cases were treated with diathermy with the rectal electrode. Eight cases were improved as evidenced by lessened frequency and residual urine, decrease in the size of the prostate. Two were unimproved and two cases treated were discontinued before an adequate amount of treatment had been administered. These patients were usually given twelve treatments, three times a week, of diathermy to tolerance and then opinion formed as to whether the treatment was getting results. The only conclusion we can reach from this small group of patients is that a certain number can be relieved, at least temporarily.

Nervous disease, organic in nature, shown in Table 13, contains a large group of intercostal neuritis cases which are relieved readily by baking and diathermy.

TABLE 13

Nervous Organic	Number	Improved	Cured	Unrelieved	Treatment Discontinued
Neuritis, intercostal	17	6	6	1	4
Sciatica	7	4	1	..	2
Neuritis, traumatic	2	2	..	..	..
Paralysis agitans	2	..	..	..	2
Neuritis, peripheral	1	1	..	..	..
Radiculitis	1	1	..	..	..
Bell's Palsy	1	..	1	..	..
	31	14	8	1	8

The final group of miscellaneous cases, twenty-six in number, are not classified under the above headings. There is usually only one case of a kind and such as do not warrant separate discussion.

The use of surgical diathermy in moles, warts, skin malignancies, etc., in office practice is very useful, but no tabulated record of these

cases was available for discussion. The medical diathermy machine of the type used by us makes the surgical current, either desiccation or coagulation, available for use in suitable cases.

TABLE 14

Miscellaneous	Number	Improved	Cured	Unrelieved	Treatment Discontinued
Obesity	6	6	..	..	..
Malnutrition	2	..	..	2	..
Alcoholism, chronic	1	1	..	..	..
Cervical adenitis	1	..	1	..	..
Climacteric melancholia	1	1	..	..	..
Cyst, thigh	1	..	1	..	..
Coronary sclerosis	1	1	..	..	..
Carcinoma, basal cell	1	1	..	..	..
Hernia	1	..	..	..	1
Hyperthyroidism	1	..	..	1	..
Hypothyroidism	1	1	..	..	..
Enlarged lymph nodes	1	..	..	..	1
Lymphosarcoma	1	..	..	1	..
Lymphatic leukemia	1	..	..	1	..
Nausea of pregnancy	1	..	1	..	..
Pneumonia convalescent	1	..	1	..	..
Rickets	1	1	..	..	..
Retention cysts, ovary	1	..	1	..	..
Serum sickness	1	..	1	..	..
	26	13	6	5	2

The above tabulated report of types of cases and results will give an idea of the versatility of physical therapy in office treatment. We feel that results justify the time and exercise involved, because it fills in a gap in the handling of certain conditions not met by medicine or drugs alone. We believe, however, that certain principles must be adhered to. Every patient submitted to physical therapy must receive a careful examination and adequate diagnosis. Physical therapy is only one branch of therapeutics and should only be used where indicated. A trained technician who can devote full time and interest to her work is the only way in which it can be satisfactorily administered. Careful check-up and follow-up notes to keep in close contact with the patient are necessary. In our experience, we have found that if these criteria are followed, physical therapy is a very important and satisfactory adjunct to the practice of medicine.

REFERENCES

1. Kovacs, Richard: Clinical Comparison Between Diathermy and Short Wave Diathermy. Arch. of Phys. Therapy, X-Ray, Radium, 17: 432, 1936.

2. Mennell, James B.: Physical Treatment by Movement, Manipulation, and Massage. Philadelphia, P. Blakiston's Son & Co., 1934.

3. Koch, Sumner L.: Injuries of the Hand, J. A. M. A., 107: 1044-1049, 1936.

RAW APPLE DIETARY IN THE TREATMENT OF DIARRHEA COMPLICATING MELENA NEONATORUM

WILLIAM J. CORCORAN, M. D.

CHICAGO

The beginning of the study of raw apple feeding as a dietary in the treatment of diarrhea in infants and children dates from the appreciation of Moro's[1] clinical observations in his children's clinic. Moro published his work in 1929. At about the same time Heisler[2] assembled a large series of case histories from an accumulation of clinical notes taken during many years of private practice and reported his experience in the use of a similar diet. This report, and the report of Moro, focussed the attention of European clinicians on the new dietetic method. Questions were asked concerning the rationale of the therapeutic measure and Moro and Heisler each answered that raw apple pulp, when finely sieved, is a non-irritating substance which mechanically inhibits peristalsis and that, hypothetically, it possesses absorbent and detoxifying properties.

During the following several years numerous European investigators corroborated the work of Moro and Heisler and extended the study in a rapid succession of clinical reports. Among these Malyoth[3] attempted to show that pectin and cellulose are the two active therapeutic ingredients in apple, and Schreiber[4] studied the intestinal flora before, during and after apple feeding and noted a decrease of pathogenic organisms coincident with an increase of bacillus coli.

In America the hopeful claims of Moro and his followers have been put to the test of clinical experience in a series of studies undertaken in various clinics and in the private practice of many physicians. And if the reports of Birnberg,[5] Kaliski,[6] Giblin and Lischner,[7] Borovsky,[8] and others concerning the therapeutic value of the dietary may be taken as typical of the experience of American investigators it would appear that response to treatment occurred more rapidly and somewhat more consistently with apple diet than with other methods. Just as the earlier European investigators had reported, cases of infectious diarrhea responded as beneficially as the non-infectious, parenteral diarrhea as promptly as enteral. Success engendered confidence, and confidence passed easily into enthusiasm.

European and American clinicians have thus

traced the progress of apple feeding therapy in chronicles of achievement. Telepathically they may have heard mutterings of criticism against a dietary which, while breaking all the rules of infant feeding, had some of the characteristics of a speculative clinical sortie, but their enthusiasm has not yet been dampened by the publication of adverse reports in the literature of science. And so, lately, the proponents of a newer therapy have unhesitatingly widened the scope of the method's usefulness. The strength of the proponents' case lies in the circumstance of repeated success, even and especially when diarrhea is severe; its weakness lies in the fact that the reasons underlying success remain vague and undeveloped.

If it is too early to view this new dietetic method in its correct historical perspective, it is at least permissible to ask whether the method is unlike many other therapeutic innovations in which early, enthusiastic and sometimes overenthusiastic preliminary reports prepared a necessary background against which a more effective and perhaps a more rational therapy took form. Even now the sketchy outline of a more effective therapy is visible in the recent report of Winters and Tompkins.[9] These investigators, accepting the hypothesis of Malyoth[10] that pectin and cellulose are the active principles in apple so far as therapy of diarrhea is concerned, devised a substitute feeding in which pectin, obtained from the peelings of citrous fruits, and cellulose, obtained from agar-agar, were combined with dextrin-maltose, the latter to provide calories. The mixture was sterilized by boiling in water or milk. In a series of cases which included Flexner dysentery and Sonne dysentery, the substitute feeding was alternated with apple-treated patients as controls. The substitute group responded faster and with less loss of weight.

The purpose of the report which follows is, first, to suggest that in certain cases of non-infectious diarrhea, as in the case cited here, there is unmistakable clinical if not yet laboratory evidence that recovery is hastened because the diet promotes the retention of body fluids, and not solely or even essentially because of the absorbent and detoxifying properties of apple, as has been commonly assumed; and, second, to indicate an extension, in lower age limit and in pathologic condition, of the already broad field in which the therapeutic principles of the raw apple or pectin-agar diets may be applicable.

Melena neonatorium is not a common clinical entity, its incidence, according to Gerhardt-Seifert[11], being less than 0.05% of births, but it is a disorder with considerable mortality figures. Vassmer[12] stated that when hemorrhage is confined to the bowel, and there are no complicating factors, the mortality rate is 10%; but one infers from what von Reuss[13] has to say of frequent loose stools during the course of melena that diarrhea is a serious complication which may be expected materially to increase the mortality rate.

In sifting the literature no report has been found of a case of melena neonatorum complicated by diarrhea in which raw apple feeding was given to control diarrhea; nor is there any record in the available literature indicating the use of this dietary as early as the third day of life in diarrhea of any origin.

CASE REPORT

History. On October 7, 1936, the infant, a male weighing 3650 grams, was born at Passavant Hospital. The delivery was a normal and easy one at the anticipated term. There was no evidence of asphyxia. The mother, a multipara, had a negative Wassermann reaction.

During the first thirty-six hours of life the infant's appearance and actions were those of a normal newborn. His color was good; he cried lustily; took water freely, nursed vigorously when put to breast, and evacuated normal appearing meconium at intervals of about eight hours.

Toward the end of the second day a large stain of blood appeared on the diaper, and the infant's buttocks were covered with bright red blood. Throughout the following twelve hours an almost continuous ooze of unchanged fluid blood seeped into the diaper, and clots and strings of coagulated blood were passed frequently.

Beginning early in the morning of the third day, meconium, at first streaked with blood and later with blood and mucus, was passed at intervals of less than an hour. The nursery nurse recorded twelve stools in a period of ten hours, and an alert supervisor noted a change in the character of the stool from the typical, tenacious, bluish-green of meconium to a dark brown, semifluid evacuation. During this time convulsive twitching began. There was no hematemesis. The temperature was normal.

Physical Examination. I first saw the child midway in the third day. Neither the skin surfaces nor the visible mucous membranes were noticeably pale. There was no blood on the pharyngeal wall. The head was slightly retracted but there was no real rigidity of the neck. The thighs were held flexed on the abdomen and the hands were tightly clenched. The abdomen was moderately distended. The sphincter ani was relaxed and a moderate prolapse of the rectum was

present from which mucus, tiny blood clots and semifluid meconium trickled. The child's facial expression, in fact his whole attitude, was one which unmistakably recorded an awareness of distress. Aside from the impression gained by observation, physical findings were entirely negative.

Laboratory Data. Third day the blood count showed hemoglobin 16.8 gm. per 100 c.c.; erythrocytes 4,400,000; leukocytes 12,600; coagulation time 3½ minutes; bleeding time 3 minutes On the fourth day erythrocytes were 4,600,000, leukocytes 22,500, and on the fifth day, erythrocytes 4,500,000. A culture of the stools taken on the third day showed only bacillus coli after forty-eight hours of growth.

Management and Progress. Immediately following the physical examination 20 c.c. of whole blood were injected intramuscularly. Six hours later, and again in twelve hours, 10 c.c. of blood serum were given intramuscularly. Breast milk feedings were stopped and the mother's milk supply was maintained by expression.

Beginning the latter half of the third day the infant was fed one ounce of a mixture of five tablespoonfuls of raw macerated apple pulp in 9 ounces of weak tea every 2 hours for 24 hours. During the next 24 hours 2 ounces of a mixture of 7 tablespoonfuls of apple in sufficient tea to make 24 ounces were fed every 2 hours. On the fifth day the apple content was increased to 9 tablespoonfuls, and 5% beta lactose was added. Three ounces of this mixture were given every 3 hours. Throughout the sixth day alternate feedings of raw apple and of expressed breast milk were given every 3 hours, and on the seventh day only breast milk.

There were twenty semifluid stools during the third day, all of which were streaked with blood and many of which, during the latter part of the day, contained mucus. Convulsive twitching recurred frequently. The temperature was slightly subnormal. During the second 24-hour period (fourth day) soft stools were passed at intervals of about 3 hours. The amount of visible blood had decreased and there was little mucus. The temperature was normal and there was no convulsive twitching. Signs of tenesmus were no longer apparent. Only small stains of blood and a few clots appeared on the surface of the five bowel evacuations during the next 24 hours. And on the sixth day (after 72 hours of apple feeding) there were only four stools, none of which contained visible blood.

The child weighed 3350 grams on the third day; 3250 grams after 72 hours; and 3520 grams on the tenth day when he was discharged from the hospital.

Comment. The sequence of symptoms and clinical course in this case closely followed repetitious descriptions of symptomatic melena vera. Particularly diagnostic was the initial sign of hemorrhage and its dominance of the clinical picture during the first twelve hours. There were no prodromal symptoms preceding hemorrhage. Insignificant change in the number of erythrocytes following the first blood count is sufficient reason for assuming that hemorrhage in this patient was not adversely affected by the method of feeding. On the other hand, there is insufficient reason for assuming that the period of hemorrhage was shortened since hemorrhage, in those cases of melena which recover, may be expected to stop spontaneously, usually between the second and fifth days.

That diarrhea was a more alarming factor than hemorrhage became evident after the second red blood cell count, but there was encouragement as well as surprise in the pure culture of bacillus coli.

It is difficult to account for the loss of only 100 grams in body weight during 72 hours of apple feeding unless one assumes that, besides the absorbent and detoxifying properties generally attributed to it, apple pulp possesses the additional property of promoting retention of fluids. No other explanation seems justified in this case. Actually, since there are 9.5 calories in one tablespoonful of apple, the infant received only 47.5 calories during the first 24 hours; 67.5 calories in the second 24 hours, and with the addition of 5% lactose, 229.5 calories during the third day. And yet, despite the fact that diarrhea was severe, there was negligible loss of weight and no appreciable decrease of tissue turgor.

It may be arguable that in this case apple feeding should have been replaced by breast milk when, after two days, even though the stools were still quite soft, the frequency had decreased from twenty to eight in 24 hours. Or it may be maintained that recovery would have been more prompt if, from the start, a larger quantity of apple had been given. But precedent provided no rules for the new-born period. My own observations and the recorded experience of others have shown that the digestive capacity of infants just beyond the new-born age and of older children permits the feeding of 2 or 3 tablespoonfuls of apple pulp every three hours, and it was interesting and instructive to observe that in the case reported here the infant eagerly took all that was offered and cried for more.

As indicated in the prefatory remarks, most clinical reports which deal with the subject of apple feeding are concerned with the effectiveness of this therapeutic measure. Much is said about prompt and sometimes dramatic response but very little, in the way of positive informa-

tion, about the action, individually or collectively, of pectin and cellulose, of tanic acid and of malic acid, all ingredients of apple pulp. And although the evidence at present points strongly toward pectin, because of its primary colloidal and buffer property, as the most important principle in apple pulp, the fact must not be overlooked that the dietetic method is new and unfamiliar and that further study may uncover and identify other therapeutically active principles and explain their action. Meanwhile, it appears that there is sufficient therapeutic value in the method to warrant more general clinical trial.

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BIBLIOGRAPHY

1. Moro, E.: Zwei Tage Apfeldiät (roh und Gerieben) zur Behandlung diarrhöischer Zustande in Kindersalter, Klin. Wchnschr., **8**: 2414, 1929.
2. Heisler, A.: Robe Apfel-Diät bei diarrhöischen Zustanden im Kindersalter und bei Erwachsenen, Klin. Wchnschr., **9**: 408, 1930.
3. Malyoth, G.: Zur Worstellung über die Wirkung der Apfeldiät, Klin. Wchnschr., **10**: 1159, 1931.
4. Schreiber, W.: Apfeldiät und Darmflora, Med. Klin., 27: 1452, 1931.
5. Birnberg, T. L: Raw Apple Diet in the Treatment of Diarrheal Conditions in Children, Am. J. Dis. Child., **45**: 18, 1933.
6. Kaliski, S. R.: Raw Apple Diet in the Treatment of Diarrhea, Tex. State J. Med., **31**: 191, 1935.
7. Giblin, J., and Lischner, M.: The Treatment of Enteritis in Infants and Children with the Raw Apple Diet, Arch. Ped., **52**: 355 1935.
8. Borovsky M. P.: The Raw Apple Treatment of Diarrhea in Pediatric Practice, Ill. Med. J., **70**: 174, 1936.
9. Winters, M., and Tompkins, C. A.: A Pectin-Agar Preparation for the Treatment of Diarrhea of Infants, Am. J. Dis. Child., **52**: 259, 1936.
10. Malyoth, G.: Das Pektin, der Hauptträger der Wirkung bei der Apfeldiät, Klin. Wchnschr., **13**: 31, 1934.
11. Gerhardt-Seifert.: Lehrb. d. Kinderh., 71, 1897.
12. Vassmer: Ueber Melaena Neonatorum, Arch. f. Gyn., **89**: 275, 1909.
13. von Reuss, A.: Diseases of the Newborn, William Wood and Company, New York, 444, 1921.

LAWRENCE-MOON-BIEDL SYNDROME

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In 1886 Lawrence and Moon[1] first described a syndrome in which the cardinal characteristics of the symptom complex were obesity, genital dystrophy, retinitis pigmentosa, mental deficiency and polydactylism. Because of the original description of Lawrence and Moon and the elaboration as a distinct obesity syndrome by Biedl[2] the name Lawrence-Moon-Biedl syndrome has been suggested for the condition.

The familial incidence of the disease suggests that it is a hereditary disorder. Solis-Cohen and Weiss[3] in 1925 reported four children in one family who exhibited marked adiposity with mental deficiency, genital dystrophy and diminution of vision due to retinitis pigmentosa. Polydactylism was present in two. Weiss[4] later reported two cases in sisters who showed in addition to the previously mentioned symptoms nerve deafness. Boenheim[5] mentioned deafness as a cardinal symptom of the syndrome. Reilly and Lisser[6] in 1932 reviewed all the reported cases in the literature, seventy-three in all at that time. Of these twenty-five showed the complete syndrome and a number of cases were doubtful. Since publication of their paper several other cases have been reported.

The fat distribution in most instances has been of the Froehlich type, and the genitals are hypoplastic. Varying degrees of mental deficiency have occurred. A peculiar appearance of the eyes and the complaint of night blindness are common. Polydactylism and deafness are not constant findings but one or both symptoms are present in a majority of the reported cases. The following case appears to be a member of this rather unusual group.

REPORT OF A CASE

R. W., a white boy, aged 11 years, came to the Clinic August 22, 1936. There was a history of obesity, genital hypoplasia, deafness and night blindness.

Family history: The patient was the youngest of three children. The father and mother were born in the United States and there was no history of consanguinity in the family to their knowledge. They were large individuals and both were in good health. There was no history of mental deficiency, night blindness, deafness, polydactylism or syndactylism in the family. The father's family tended to be obese.

The patient was the product of the fifth pregnancy. The second and fourth pregnancies had terminated at term with still-born babies. An older sister and brother were alive and well.

Birth and development: The patient was born at term, was delivered normally and weighed 10½ pounds. The first tooth erupted at three months, he talked at 15 months and walked at 20 months. He was apparently perfectly well until two years of age. At that time he fell 14 feet from a second story window following which he was unconscious for one hour. For three weeks afterward he complained of pains in the head and then again was apparently perfectly well. About six months after the fall deafness and disturbance of speech were noted and the deafness became progressively more marked for a time. At four years of age his mother noted the obesity and at the age of ten years night blindness became manifest. The obesity was more marked as he grew older and no improve-

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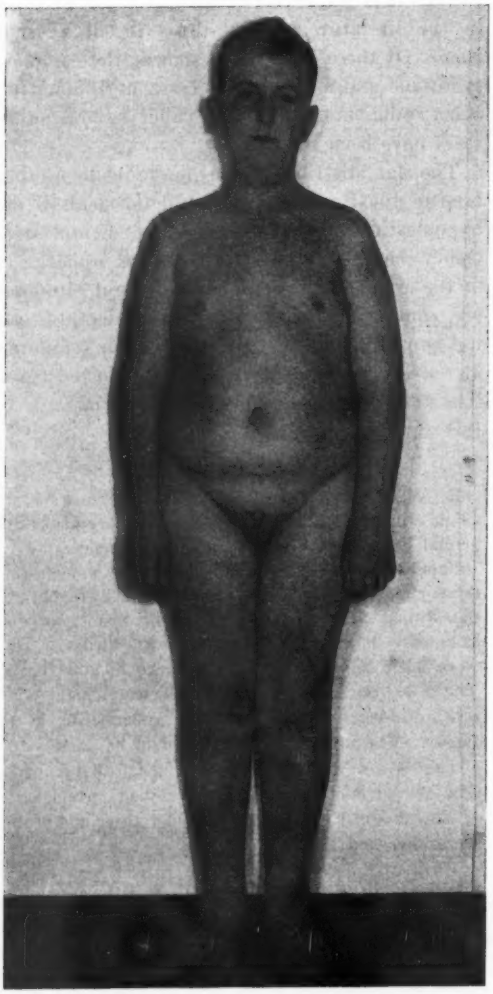
ment in speech had been noted since he was eight years of age.

He had never gone to school but with concentrated tutelage had learned to write his name and a few other words. He was clean in his habits, of a good disposition and obedient. There was no behavior disturbance.

He had had measles and pertussis, both in mild form. At the age of five years he had undergone tonsillectomy and dilitation of the eustachian tubes because of the deafness. There was no history of polyuria or polydipsia.



KEY TO ILLUSTRATION

Figure 1.: Taken three months after institution of weight reduction. Weight at this time was 149 pounds (67.9 Kg.). Note hypogenitalism and Froehlich type of fat distribution.

Examination: The patient was an obese boy of normal height for his age. His weight was 176 pounds (80 Kg.). Average weight for his age and height was 86 pounds (39 Kg.). The temperature and pulse rates were normal. The blood pressure was 110 systolic and 70 diastolic. The salient findings in the physical examination were obesity of the Froehlich type, genital hypoplasia, deafness and badly pronated, flat feet. There was no polydactylism or syndactylism. His speech was gutteral and inarticulate and he was totally deaf.

The eyes were examined by Dr. G. L. Porter. It was impossible to obtain the visual acuity but the poor vision caused no difficulty in the daytime. The external appearance of the eyes was normal, pupils regular, equal and reacted to light and in accommodation. It was impossible to obtain even a gross visual field estimation. Ophthalmoscopic examination revealed the following: there were a few vitreous opacities, both discs showed a mild pallor without loss of substance. The retinal arteries were markedly reduced in calibre without evidence of sclerosis. The periphery of the retina showed the bone-corpuscle type of pigmentation typical in retinitis pigmentosa. There was moderate choroidal degeneration. In each macula there was an area of cystic degeneration with a formation of a hole about 2/3's disc diameter in size through which the reddish brown underlying choroid was plainly visible. The eyes were hyperopic about 3½ diopters.

The basal metabolic rate was —10% (Benedict standard). The blood sugar was 87 mg. per one hundred cubic centimeters of plasma; the result of the glucose tolerance test was negative. The blood Wassermann and Kahn tests were negative. Urinalysis was negative and the complete blood count was within normal limits. A Mantoux test with 1/10 mg. of old tuberculin was negative.

Roentgenograms of the head showed a turret shaped skull; the sella turcica appeared normal. Roentgenograms of the chest were negative. The wrists showed a normal number of ossification centers.

The occipitofrontal circumference of the skull was 55.5 cm., the span of the arms 153 cm.; the circumference of the abdomen at the level of the umbilicus 90.5 cm. and the circumference of the chest at the nipple line 94 cm.

Psychometric studies were done by Dr. Harold Anderson from the department of Psychology at the University of Illinois. He made the following report: The mother reports this patient is sensitive to vibrations. He probably does some lip reading as the mother frequently communicates with him in sounds scarcely above a whisper. He has had no systematic training in lip reading and not much help in the development of concepts. Only a limited number of tests were available but the general impression in watching the boy's struggle to understand his mother's directions and his performance is that he is mentally retarded but has abilities that could be considerably developed by adequate training.

Due to the small number of tests given in the Binet-Simon series it was impossible to compute a mental age. There was found no evidence of mental retardation which could not be accounted for by his auditory handicap.

On the Thurston Hand test he made a score ranking at the 60th percentile of norms based on the record of 238 male engineering students in college.

With the Healy-Bronner Learning Z test he scored 28, placing him at the 40th percentile of norms for ages 8 to 12. He was given three consecutive trials with scores 5, 10 and 13 respectively. The progress of scores is evidence of learning ability.

He was put on a 1000 calorie weight reduction diet and a corrective shoe was advised. He was given 1 c.c. of anterior pituitary extract twice weekly for two months. A definite enlargement of the testicles occurred but no change was noted in the penis at the end of this period. After three months on the diet, his weight was reduced from 176 pounds (80 Kg.) to 149 pounds (67.7 Kg.). He was considerably more active and subjectively less tired after exertion. On January 14, 1937, his weight was 135 pounds (51 Kg.) and the stringent reduction regime was modified. At the present time plans are being formulated to give the patient institutional training for the speech difficulty.

Comment.—Numerous theories have been advanced as to the causes of the Lawrence-Moon-Biedl syndrome. Raab[7] suggested that a high and massive dorsum sella in these patients caused interference with the flow of an energizing secretion from the pars intermedia of the pituitary gland through the stalk of the infundibulum to certain metabolic and genito tropic centers at the floor of the midbrain. The objection to this theory is that most cases of the fully developed syndrome show an absence of high and massive dorsum sella.

Orsteen[8] holds a genetic defect of the prosencephalon (forebrain) is responsible for adiposogenital dystrophy, retinitis pigmentosa and mental deficiency and that skull deformities, polydactylism, atresia ani and other occasional anomolies are present only through the coupling of somatic genotypic unit characters. Jenkins and Poncher[9] feel Ornsteen's theory furnishes a working hypothesis for the occurrence of adiposogenital dystrophy, the mental deficiency and retinitis pigmentosa but does not offer an adequate explanation for the polydactylism or any of the other defects occasionally associated with the syndrome. They presented a hypothesis based on known facts of mendelian heredity, as it occurs in lower forms of life, presuming such processes undoubtedly occur in man in the same way. They suggest that the syndrome is due to the linkage of two or more genes bearing unit character. These genes cannot carry simple dominants; they may bear simple recessives.

SUMMARY

A case of Lawrence-Moon-Biedl syndrome is presented. The various theories as to patheogenesis of this unusual condition are briefly discussed. Therapeutic measures except from the standpoint of weight reduction are apparently without promise at the present.

BIBLIOGRAPHY

1. Lawrence, J. Z., and Moon, R. C.: Brit. Ophth. Rev., 2: 32, 1866.
2. Biedl, A.: Deutsche med. Wchnschr., 48: 1630, 1922.
3. Solis-Cohen, S., and Weiss, E.: Am. J. M. Sc., 169: 489, 1925.
4. Weiss, E.: Am. J. M. Sc., 183: 256, 1932.
5. Bonheim, F.: Endokrinologie, 4: 263, 1928.
6. Reilly, W. A., and Lisser, H.: Endocrinology, 16: 337, 1932.
7. Raab, W.: Wien, Arch. Inn. Med., 7: 443, 1924.
8. Ornsteen, A. M., Am. J. M. Sc., 183: 256, 1932.
9. Jenkins, R. L., and Poncher, H. G.: Am J. Dis. Child., 50: 178, 1935.

FURTHER STUDIES WITH ZINC IONIZATION IN THE TREATMENT OF TRACHOMA

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Three years ago I began treating cases of trachoma in all clinical stages with zinc ionization of the conjunctiva, which[1] I reported last December. Since then, I have had ample opportunity to observe the results of some of the cases treated; and, through the suggestions of some of my colleagues who have carried on zinc ionization in trachoma with my method and electrodes independently, the technique and electrodes were improved. So, I am glad of the opportunity to report this second series of cases which have been observed by others as well as by myself.

A. F. MacCallan[2] laments the fact that there has been no advancement in the method of treatment of trachoma during the last thirty years. I may state that there has been little improvement in our modern procedures from those in vogue by the ancients. They used practically the same medical and surgical methods that are being used today in the treatment of trachoma, and while the disease at present is not epidemic, it still remains as an endemic disease in many lands. It is most frequent in Arabia and Palestine, is endemic in Syria, Persia, Central Asia, China and Japan. It is very prevalent in most eastern European Countries, especially

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in Galliopoli, Poland, Lithuania, Russia, Hungary and certain districts in Germany.

In the United States it is found, with severe and destructive manifestations, in Southern Illinois, in the mountainous regions of Kentucky, West Virginia, Missouri and Tennessee. Mossman[3] states that in 1913-1914 it was estimated by John McMullen that there were 33,000 cases of trachoma in the 35 mountain counties of Kentucky, and that in Missouri 20% of the blind pensioners were end-results of trachoma. The latest figures (July 7, 1927) show a total of 3152 pensioners, and of those, 637 or 20.2% were blind from trachoma. In Oklahoma, Arkansas, Texas, Arizona, and New Mexico, trachoma is very prevalent. Among the Indians of our country, based on a population of 194,-824, seventeen per cent were found to have trachoma in 1911, according to the annual report of the Commissioner of Indian affairs for that year. The Eskimos are susceptible to trachoma, and small endemic foci are found among them.

Etiology. With reference to the etiology of the disease, one is amazed, on referring to the literature, at the extent of the investigation and experimental work which has been carried on to date. Howard,[4] in his summary on "Results of Recent Investigations in the Etiology of Trachoma," evaluates and divides the alleged factors into five groups:

1. *Inclusion—Bodies:* Certain investigators believe that the inclusions of trachoma and other diseases are morphologically alike but that they may be biologically different. Animal experimentation has thus far failed to solve this problem. Although etiologic significance is disputed, the diagnostic value of inclusion-bodies remains "almost undoubted." Other workers who have artificially induced conjunctivitis in animals, conclude that the presence or absence of inclusion-bodies would appear to be of no importance in the etiology or diagnosis of trachoma.

2. *Nutritional and Constitutional Aspects:* The status of either of the following remains uncertain; Vitamin A or B deficiency, lymphadenoid diatheses, digestive disturbances in infants or a chronic evolution in a lymphatic constitution.

3. *Bacteriology:* There is not sufficient proof that the Bacillus granulosis of Noguchi, or any of a number of other bacteria advanced by other investigators, are responsible.

4. *Filtrability:* There is no evidence to support the following: that the etiologic agent is a filtrable virus; that the agents concerned are virus plus secondary invading bacteria. Studies of Julianelle and Harrison[5] indicate that the infectious agent of trachoma is not readily filtrable. Thygeson[6] in his recent work on filtrability of trachoma virus is convinced that he has demonstrated the causative agent. Kuttner and Shao[7] believe that inclusion-bodies may be due to a filtrable virus of low virulence or to other agents.

5. *Allergy:* Experiments of Julianelle and Morris[8] are "highly suggestive": that trachoma may be due to a purely allergic condition.

From the above deductions one can readily see that at present little is known concerning the mode of propagation of trachoma; that poverty, undernutrition, squalor, prolonged contact with a trachoma sufferer, unhygienic and crowded modes of living, seem to be the only common circumstances wherever trachoma exists, be it in Egypt, Southern Illinois, Arabia, India or Hungary; although occasionally a sporadic case occurs among the well-to-do and well nourished individuals with no history of a contact.

Stucky,[9] in 1913, who has made a thorough investigation of the situation of trachoma in Eastern Kentucky, has advocated and obtained the assistance and coöperation of the state and federal government to combat it, and aside from prophylaxis and some preventive measures, not much progress has been made since. In this connection may I call your attention to the condition existing in my own state. It is estimated there are 7000 cases of trachoma in the hill counties of southern Illinois among native Americans. A clinic was established in 1934, designated the "Governor Horner Trachoma Clinic," and has been operating since.[10] From that period to March, 1936, a total of 971 cases (or 1866 eyes) were treated; the total number of treatments given was 12092, some patients receiving as many as 115 treatments. The results as officially summarized are as follows:

Vision before Treatment		After Treatment
20/20	565	5% lost vision
20/40	293	10% improved to 20/50 or better
20/60	118	
20/100	291	7% improved to 20/200
20/200	143	
Under 20/200	375	
No vision recorded	45	
Amaurosis	36	
Total, eyes	1866	

Only 82 cases out of 971 showed improvement in vision, and the improvement was only up to 20/50 and 20/200, while 25 cases lost vision despite treatment. The 82 cases which improved slightly had fair vision before treatment. The negligible results which were obtained at a tremendous cost to the state are worthy of mention here.

The cost of each treatment was tremendous; some of the money was appropriated by the State of Illinois, by the federal government, by the Illinois Society for the Prevention of blindness, and by the individual counties.

I believe that the socialization and regimentation of the treatment of trachoma by political appointees as against the competent local physicians who are well experienced with the groups, types, families and individual patients, and who have a great deal of knowledge, experience and information in the treatment of this dread disease, is a grave error, and is another demonstration as to what state medicine in general will do in the future. The local doctors could and would handle the situation at a fraction of the present cost with far better results. Furthermore, research work and investigation has been entirely neglected and even discouraged.

If the state, the federal government, organized charities and local counties are willing to spend vast sums of money, those sums should be expended in a manner so as to accomplish the most good. Now patients are transported 40-60 miles to a courthouse, public library or other public building obviously intended as a political show. This money should be spent with the local physicians who are capable of handling the situation, from whose hands the trachoma problem has unjustly been removed by state medicine.

Surgeon General Parran, of the U. S. Public Health Service, offers a remedy in the following words: "I am convinced an integrated plan of public health, public medical service and private practice is preferable to State medicine, as their proponents refer to it. Under the combination I favor, the doctor would retain everything now satisfactory to himself and his compensation for the present unbearable load of free service; there would be no disruption in the physician-patient relationship for the large sector of medical practice in the home and in the doctor's office."

Pathology. The pathology of trachoma, unlike its etiology, is so well known and has been worked out so thoroughly that in a report of this nature only the definition is necessary. Trachoma is defined as a specific infective disease[11] of the subepithelial tissue of the conjunctiva characterized by infiltration and the formation of lymphoid follicles, which necrose. In the later stages of the disease there is a formation of fibrous tissue of variable amount; it may be so extensive as to cause obliteration of the conjunctival sac.

The disease, beginning in either the upper or lower fornix, appears first in the form of gelatinous-looking round swellings or follicles, which become confluent, and then resemble grains of boiled sago or frog-spawn. When large, these follicles easily rupture and their gelatinous content is extruded. The first sign of the disease in the tarsal conjunctiva is in the form of small, circular, pale-grey areas due to follicles embedded in the fibrous tissue; later, these enlarge and form elevations on the surface which, like the follicles in the fornices, may rupture. Clinically, trachoma is classified either as papillary, follicular mixed, or cicatrical. In some cases, where a fibrous band of tissue is formed around the sulcus subtarsalis, it is termed *Arlt's streak;* in others, there is a hyaline degeneration which gives it the appearance of a brawny edema (Stelwag's). The complications, sequella or end-results of trachoma need not be mentioned here.

Diagnosis. This series of cases which I am reporting have resisted treatment longer than a year and there has been no question about the diagnosis. Most of them have been treated at clinics, with an established diagnosis of trachoma, with the usual methods of application of astringents, mild caustics, massage, expression and irrigation; some have had operative procedures on the lids. Some have cleared up for a time, only to have an acute exacerbation with symptoms beginning all over again and complications following. In many of them some scar tissue in the tarsal conjunctiva was present with pannus, and a few had considerable scarring of the cornea from ulcers. Thickening of the lids and some degree of ptosis were present in nearly all of the cases. It seems as though every case of trachoma in this series was a law unto itself and no formulated treatment was applicable to all of them, and when zinc ionization was started,

the cases represented almost any clinical variety with most of the complications and sequellae common in trachoma, even trichiasis and entropion. The most striking observations by all of us who applied zinc ionization was the absorption of the follicles, thinning of the lids and the smooth and thin resulting cicatrices.

Some of these results were observed as early as three weeks after the initial application of zinc ionization. Where there was pannus the condition began to improve from the first treatment on. Borderline cases and those of doubtful diagnosis were not treated in this series.

Method of Application. Butyn anesthesia is used. With the patient in the recumbent position, the negative pole is connected to a pad (saturated with normal salt-solution) affixed to the patient's arm or back. The positive pole is connected to the eye electrode, previously saturated with a 2% zinc sulphate solution, and inserted under the lids. A current of about 5 to 7 ma., from a galvanic apparatus, capable of delivering at least 10 ma., is turned on gradually for ten minutes. After removal of the eye-electrodes, the fornices are thoroughly irrigated with saline solution, as there is a considerable amount of zinc chloride solution mixed with the lachrymal fluid, which is quite irritating. On inspection of the conjunctiva one sees a grayish yellow film which is firmly attached wherever the electrode was in contact. The film remains for about three to nine days deeply imbedded in the conjunctival subepithelial tissues. Care must be taken that the insulation is intact on the posterior or corneal surface of the electrode as well as on its margins. Exposure of the metallic zinc causes cauterization and sloughing.

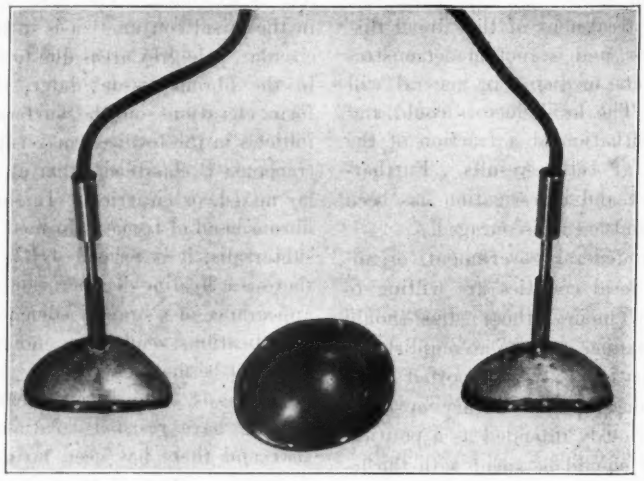

FIG. 1. Electrode

CASE REPORTS

Of the 53 cases previously reported,[1] I was able to follow 21 patients which have been discharged from the clinics as arrested cases and who have received no active treatment since discharge, as follows:

7 cases no recrudescence 29 months
4 cases no recrudescence 24 months
4 cases no recrudescence 19 months
6 cases no recrudescence 11 months

None of the above mentioned patients have had any symptoms whatsoever and the disease to date remains arrested.

This represents 62% of the cases which I was able to follow, out of the 34 which were discharged as arrested in the original series of 53.

In this series of 72 cases, which we began treating in August, 1935, the treatments were given at two, three and four weekly intervals. We waited until all active symptoms and reactions disappeared before administering the next zinc ionization, and no more than four treatments were administered to any eye. The following are the results so far.

In 11 cases the disease was arrested after two treatments were given at two week intervals, and have been discharged and no active treatment given since December, 1935.

Nineteen cases were given three treatments each, 12 at two weekly intervals each and 7 at three weekly intervals each. Their course of treatment ended March of this year, and they have received no further active treatment since then and no signs of relapses or recrudescence has been noted.

Fourteen cases received one treatment each and refused further zinc ionization; 8 of these were subsequently treated for a period of ten weeks with cha-

moogra oil massage and mercury oxycyanide irrigation, and were discharged as arrested in May of this year. The other 6 did not return for further treatment.

Ten cases did not respond to the treatment over a period of thirteen months. Some received one, two and three treatments.

Nineteen cases are being treated now, of which some are showing definite regression with amelioration of symptoms and notable improvement in follicle and lid conditions.

Reactions from Treatments. No severe reactions or complications were noted in any of the patients treated. Moderate edema of the lids and engorgement of the conjunctiva were present in all of them, which lasted from about five to fourteen days. The film or membrane which appeared in most of the cases on the conjunctiva where the electrode was in contact, usually disappeared in about ten days.

SUMMARY AND CONCLUSIONS

1. All cases had previously resisted many forms of accepted treatment for a year or longer, and zinc ionization resulted in arrest of the disease after one or more treatments, excepting in 7% of the cases which did not respond.

2. No complications or sequellæ resulted in any of the patients treated, and only edema of the lids and engorgement of the conjunctivæ were noticeable.

3. Follicles disappeared rapidly and cicatrices when present became thinner and smoother in most cases.

4. Thickening of the lids and ptosis were noticeably reduced in all cases.

5. The favorable results were noticed early, even after one zinc ionization treatment.

6. Improvement in vision was noticed from 1/10 to 3/10 in 21% of the cases treated.

7. No recrudescence occurred in

7	cases after	29 months
4	cases after	24 months
4	cases after	19 months
6	cases after	11 months
11	cases after	8 months
19	cases after	6 months

Total percentage discharged as arrested in both series was about 41%.

8. Cases which resisted routine treatment for a year or longer, who received one zinc ionization treatment and who refused further ionization, and who were subsequently treated routinely, were discharged in ten weeks as arrested without any further active treatment and remained quiescent.

9. Amelioration of all subjective symptoms with notable beginning regression of follicles was obtained in 24% of all cases treated after only one treatment.

10. Zinc ionization was employed in acute and chronic cases of trachoma and in the presence of corneal ulcers and pannus.

11. No expensive equipment or apparatus is required. Any galvanic current generated by dry or wet cells, a battery or street current fitted with a rheostat and milliampermeter is suitable.

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BIBLIOGRAPHY

1. Edison, Samuel M.: Trachoma Treated by Zinc Ionization (Preliminary Report), Arch. Phys. Therap. X-Ray, Rad., 19: 102, 1936.

2. McCallan, A. F.: Trachoma—Recent Advances and the Principles of Prophylaxis, Brit. J. Ophth. 19: 253, 1935.

3. Mossman, Paul D.: Trachoma in the State's Health Program, Pub. Health. Rep., 43: 449, 1928.

4. Howard, H. J.: Results of Recent Investigations in the Etiology of Trachoma, Am. J. Ophth., 16: 218, 1933.

5. Julianelle, L. A., and Harrison, R. W.: Studies of the Infectivity of Trachoma, Am. J. Ophth. 18: 133, 1935.

6. Thygeson, P., and Proctor, F. I.: Filtrability of Trachoma Virus, Arch. Ophth., 13: 1018, 1935.

7. Kuttner, Ann G., and Wang, S. H.: The Problem of the Significance of the Inclusion Bodies Found in the Salivary Glands of Infants, and Occurrence of Inclusion Bodies in the Submaxillary Glands of Hamsters, White Mice, and Wild Rats (Peiping), J. Exper. Med. 60: 773, 1934.

8. Julianelle, L. A., and Morris, M. C.: Studies of Pannus Formation in the Cornea of Rabbits, Proc. Soc. Exper. Biol. & Med. 30: 295, 1932.

9. Stucky, A. J.: Pamphlet No. 6 of the Conservation of Vision Series, A.M.A., 1913.

10. Gradle, H., Lenzen, A. F., and Hayden, A. M.: Trachoma Situation in Southern Illinois, Illinois M. J., 69: 222, 1936.

11. Collins, Edward T., and Mayou, M. S.: Pathology of the Eyes, Philadelphia, P. Blakiston & Sons, 1925.

DISCUSSION

Dr. O. B. Nugent of Chicago: I have seen Dr. Edison's work with zinc ionization in trachoma at the Illinois Charitable Eye and Ear Infirmary and will confirm his statement of results. Many of the cases which were shown eight and nine months after the final treatments showed complete healing with very smooth conjunctival scars and few, if any, had remaining pannus.

I have not used this method myself and the only experience I had with physical therapy referring to trachoma was with cauterization of vessels around a pannus which resulted in complete absorption. Dr. Edison should be congratulated on his work and I believe that some of us should follow his technique as it opens a new avenue in the therapeutics of trachoma.

Dr. Gustav Erlanger of New York: For the past 17 years I have been working with ionization of the eyes generally. I have seen many cases of trachoma and can say that I confirm all that the essayist has said. There is no doubt in my mind that as far as the cornea is concerned that ulcers and pannus disappear more rapidly under Dr. Edison's form of treatment. I have used calcium with zinc in mild solutions preceded by adrenalin and there was practically no irritation or reactions following the treatment. Of course

the irritation and reactions are variable with different cases but I find that by stimulating the sympathetic system that I get better ionization. It produces not merely a passing hyperemia but an active one.

I remember one particular case of trachoma which I treated with ionization in a patient who had a large ulcer of the cornea and in which all other methods failed to clear it up. I treated the patient with ionization of zinc and calcium and after the second treatment the ulcer shrank and in eight days it practically disappeared and the conjunctiva looked fairly normal. I can earnestly recommend the use of Dr. Edison's method but I think that the voltage should be reduced and also the concentrations of the solutions. A 0.5% of zinc sulphate with 1% of calcium chloride is a more satisfactory solution.

Mimmi of Japan recommends the use of a 25% solution of calcium chloride for ionization and reported excellent results, but I have tried it and the reactions were too great.

I believe that zinc ionization in the treatment of trachoma as used by Dr. Edison is so effective because of the infiltrations of the drugs into the conjunctiva and cornea and into the masses of cells. The infiltration of the drugs is more lasting and more effective than even subconjunctival injections.

Dr. H. M. Cottle (Chicago): I have seen many of Dr. Edison's patients in his clinic and on many occasions have witnessed him carry out the treatment at the infirmary and can substantiate all that he has said. About seven years ago I started the use of diathermy in the treatment of trachoma, especially when there was pannus present. In 1931 in the Journal A. M. A. a report from Armenia was printed regarding the use of diathermy and coagulation of the lids in the treatment of trachoma. Since that time I had occasion to use it. I am referring to the pannus of trachoma which yielded very readily to the diathermy treatment as reported in the Journal and by myself.

Some of my cases are now seven years and five years old with no recurrences. Dr. Nugent has also used the method for several years. I think he reported on them before one of the sessions of this Society, a year or two ago.

To those of you who are doing that work, I recommend that, in addition perhaps as a supplement to the work of Dr. Edison.

The question of anesthesia is very important. After-pain must be taken into consideration, but after that it is remarkable just what occurs. Large ulcers of the cornea and follicles disappear.

Dr. Edison (Closing): I wish to thank the discussers of this paper and I am gratified to learn that they too have had results similar to those which I reported. Since my preliminary report I have been in communication with some men in this country, Europe and Asia, who have carried out this form of treatment, and it is very encouraging indeed. Dr. Erlanger's remarks are well taken. I have tried milder solutions of zinc and also combined them with calcium. I have used all the way from 3 to 12 milliamperes in different cases and I can assure him that there are no severe reactions up to 10 milliamperes with exposure of from 5 to 10 minutes with a 1% zinc sulphate solution, and the calcium does not seem to make much difference.

Dr. Cottle's remarks pertain to surgical diathermy and coagulation of the follicles and using diathermy to cut off blood vessels from around a pannus and his work is well known and recognized, but has no particular bearing on the zinc ionization of the conjunctiva as I have used it, and which my present report consists of. After the trachomatous conjunctiva is quieted, then surgical diathermy to pannus or ulcers of the cornea is indicated, but per se it does not influence trachoma. Many methods of coagulation and cautery have been used on the conjunctiva in trachoma but as far as I know this method of zinc ionization as described by me is different and I believe very effective.

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CESAREAN SECTION

WILLARD C. SCRIVNER, M. D.

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Rarely a day or night passes without physicians aiding womankind in an obstretrical capacity. Some time your initial meeting with the patient is at the delivery but fortunately more women are learning the advantages in adequate prenatal care.

The vast majority of cases are uncomplicated and deliver through the birth canal. However, a few because of disproportion or other pathology cannot be terminated successfully except by the abdominal route.

Improved technic in performing cesarean section is probably one of the main reasons for the increased frequency of the operation today. This subject has been thoroughly presented in the literature recently by Dr. Stander and others. For the present I wish to focus your attention on the technic which has met with great favor on a large obstetrical service during the last year and a half, namely the so-called "Transverse Incision of the Lower Uterine Segment."

The chief advocate of this type of incision is Phaneuf; however the procedure was suggested some fifteen years ago by Munro Kerr.

The following is a brief case which illustrates the topic of our discussion:

F. H. is a 21 year old primipara routinely followed for 5 months preceding hospital entry 6 days before term date. Her history was irrelevant and general physical examination without note. From the obstetrical point of view she was considered an elective sec-

Read before the 62nd meeting of the Southern Illinois Medical Society.

tion because of a generally contracted pelvis, that is to say the diagonal conjugate measured 9 cm and tubers measured 7 cm with presenting part floating freely. Blood pressure, urine and Wassermann were normal. During the 3 days period of hospital observation she received a daily vaginal instillation of acraflavin 1% in glycerin. Under morphine scopolamine seminarcosis and 1% novocaine local infiltration ahe abdomen was opened; bladder peritoneum reflected down and a transverse incision was made in the uterus just below the junction of the upper and lower uterine segments. A 3000 gram living female child delivered; placenta removed and the DeLee's shuttle with intrauterine pack placed. There was no extension of the uterine incision and it was closed with one layer of interrupted sutures and a layer of continuous. The suture used was 2:20 day. The bladder peritoneum was then sutured over the uterine incision and the abdomen closed in routine manner. The packing was removed the following day and the postoperative course was uneventful. Patient and baby were discharged on the 13th postoperative day. Her course after leaving the hospital was entirely normal.

Fig. 1. Abdomen opened and bladder peritoneum being reflected down.

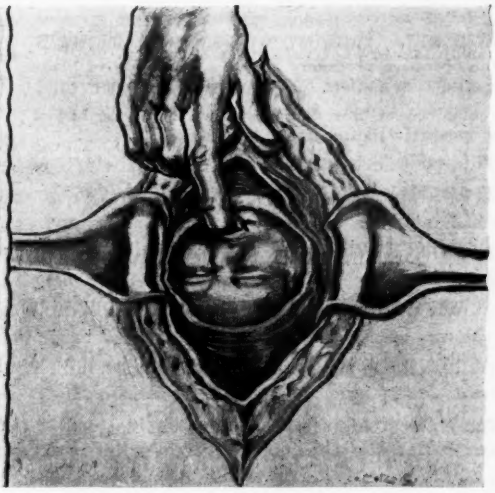

Fig. 2. Transverse incision in uterus with chin anterior for extraction.

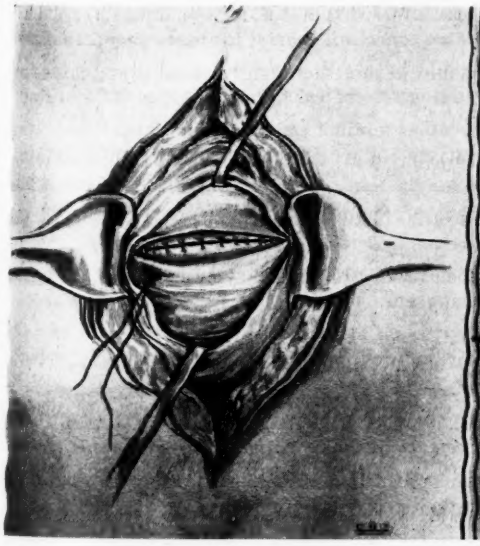

Fig. 3. Uterus closed with one row of interrupted and one row of continuous sutures.

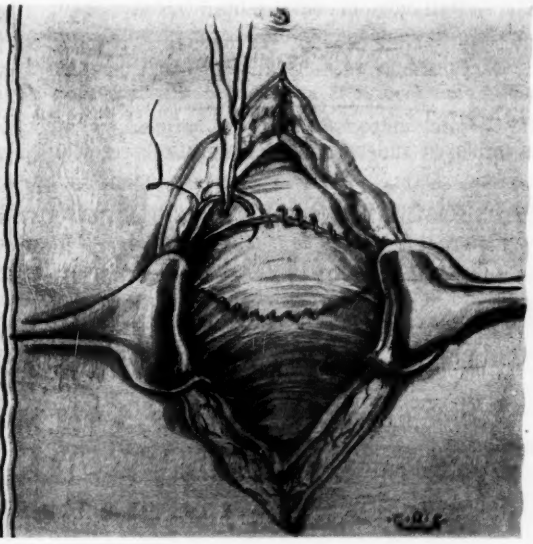

Fig. 4. Note closed uterine incision beneath bladder flap which is now being closed.

She again presented herself some eleven months later for an initial visit with her second pregnancy. As in the first pregnancy the prenatal course was entirely

normal. On July 16 of this year she was hospitalized for a second elective section. This operation was carried out in the same routine manner as discussed in the first except sodium amytal with hyosine constituted the seminarcosis and gas ether mixture for the anesthetic.

Careful inspection of the intraabdominal operative field failed to reveal any evidence of the previous cesarean scar. There were no additional difficulties in the operative procedure as for a retraction of bladder peritoneum and etc. A 3100 gram living male child was obtained at this operation and again she had a very uneventful postoperative course.

This technic has not only proved satisfactory from the standpoint of decreased blood loss, decreased incidents of infection but in addition as we have noted in this case it has given very satisfactory healing—so perfect that in 16 months there was no gross evidence of a previous incision of a lower uterine segment.

At this point I would like to mention another advantage of the lower transverse incision; namely, cesarean section followed by sterilization. After the child is delivered it is a very easy matter to clamp and cut the broad ligaments and continue the uterine incision posteriorly thereby performing a supravaginal hysterectomy. The advantages of this simplification are of course quite obvious to you.

In conclusion we must all agree that cesarean section in general is abused and the high mortality rate unnecessary. If the proper technic is employed under the proper conditions cesarean sections in this country as elsewhere should be a real life saving procedure and not a contributor to maternal mortality as it is today.

Spivey Bldg.

PRENATAL SYPHILIS A PREVENTABLE DISEASE

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CHICAGO

Syphilis acquired before birth is known as prenatal (congenital) syphilis. This form of syphilis is a contact infection transmitted to the child by the mother. This transmission takes place from the mother to the fetus about the fourth month of pregnancy. The transmission is from the maternal circulation by means of the placenta. This means that it is necessary for a spirochetemia to be present in the maternal circulation. Such a state exists in early syphilis and if conception occurs during this period of the maternal infection, the conditions are ideal for placental infection. Pregnancy occurring during late syphilis may or may not terminate with fetal infection.

The entire problem of syphilis is now receiving national and state governmental consideration. It deserves recognition, because of the great toll it exacts in every phase of our national life. Measures for the control of this plague are now in preparation in our own state. But while it may take a decade or longer before we can diminish the incidence of early syphilis, the prevention of prenatal syphilis can be easily accomplished *now*.

The prevention of prenatal syphilis is simple and under favorable conditions almost certain. In order to prevent prenatal syphilis with all its immeasurable disasters, personal and social, it is necessary for the medical profession and those individuals interested in public health work to attempt the colossal task of educating the public to know that every expectant mother, regardless of wealth or social status, should report to her physician or clinic early in pregnancy; that she should have a thorough physical examination including serological tests (Wassermann and Kahn or other similar precipitation tests, Kline, Hinton, etc.) and if any evidence of syphilitic infection, clinical or serological, be found, she should have adequate treatment. When these methods are applied to all cases of syphilis in pregnancy, then will prenatal syphilis cease to exist among us.

It must be realized that the diagnosis of syphilis in pregnancy is usually impossible without the aid of a blood test. Syphilis in pregnancy is commonly without clinical manifestations. Information from patients with regard to previous infection is often misleading or even intentionally false, and moreover women are frequently (more than 50%) unaware of infection, since the primary lesion is often hidden from view. It is this knowledge that we cannot depend on clinical manifestations alone to diagnose syphilis in women that should make a routine serological examination of each and every pregnant woman a procedure which should be as much a part of medical practice as the taking of the patient's name.

From the Ehrlich Clinic of the Chicago Maternity Center.

It is a matter of surprise to the syphilologist that the obstetricians who are so convinced of the value of routine Wassermann examinations and antisyphilitic treatment when necessary in clinic practice, are averse to applying the same procedure in private practice. The objection often advanced that the private patient, the average well-bred woman, will be insulted at the mention of syphilis, is a time-worn relic of the unfortunate mixing of morals and medicine. The obvious answers to this objection are: First, that there is no station in life, no amount of culture, blue blood, or education which protects any individual against syphilis. The bishop brought into contact with the spirochete is as liable to infection as the negro laborer; the debutante as susceptible as the wife of a taxi driver. Second, there is no necessity whatever for explaining to a patient that one desires to test the blood for the presence or absence of syphilis, any more than one explains in detail the rationale of urine testing, blood count, blood sugar determination, etc. We are often asked: Is the Wassermann test reliable during pregnancy? Stillians,[1] who studied this question thoroughly, concludes that the Wassermann reaction has almost the same diagnostic value in the pregnant as in the non-pregnant woman.

Kilduffe[2] says: "False positive reactions do not occur in the maternal serum in any greater proportion than is common to the method used in performing the test." Our procedure is to divide our patients into serologically negative, serologically positive and serologically doubtful. Those who on two ar three successive examinations have a 4-plus Wassermann and Kahn, or a 3-plus Wassermann and Kahn are considered definitely syphilitic. Those patients who on two or three successive examinations have readings as Wassermann 2 plus, Kahn negative, or Wassermann and Kahn 1 plus, or Wassermann negative, Kahn 2 plus, are submitted to further study. These patients are questioned closely about previous pregnancies, about premature births and miscarriages, the other members of the family are examined, especially the husband and the previously born children; and the blood tests are repeated at suitable intervals following a provocative test, or, following the use of potassium iodide. Furthermore, these patients are observed closely for a period of months. In no case is treatment instituted until a definite diagnosis is established. A negative test on suspicious cases is repeated at suitable intervals.

These briefly are the principles upon which we conduct our Luetic clinic. Blood serological examinations are so routine with us as the taking of the patient's name and address. We have been using this since the inception of our clinic in 1932. Using this procedure, we examined serologically 14,355 women and our figures of syphilis complicating pregnancy are:

Year—1932	White 3%;	Colored 7%
Year—1933	White 4%;	Colored 6%
Year—1934	both White and Colored.....	5.3%
Year—1935	White 3.5%;	Colored 7.9%
Year—1936	White 3.2%;	Colored 8.5%

We treat our patients as soon as a diagnosis is established. In treating these women we have three major aims: 1. The immediate effect on the outcome of the existing pregnancy; 2. The protection of the fetus in possible future pregnancies; 3. the cure or arrest of the syphilitis infection of the mother. During the period of gestation it is our custom to rely on bismuth since bismuth is the least hepatotoxic and nephrotoxic anti-luetic drug we possess. In the last five years we gave over 10,000 neo and bismuth injections without a single serious complication. We studied the effect of bismuth on the prevention of prenatal syphilis and we are convinced that it is as effective as neoarsphenamine and much more effective than mercury. Following the termination of pregnancy, we ask the mothers to return to the clinic with the infant three weeks post partum. In well equipped hospitals it is possible to establish a diagnosis of prenatal syphilis in an infant before the child is three weeks old. This is possible by the microscopic study of the placenta, by the darkfield study of the cord, by the x-ray examination of the long bones. We do not possess these facilities. The cord Blood Wassermann is not reliable. The blood of the infant in the first three weeks is also not reliable. Hence, we wait three weeks. If at the age of three weeks the child shows clinical signs of syphilis or the child's serology is positive, we institute acetarsone therapy. If the child's blood is negative, we repeat blood tests at the age of two months, four months, six months and one year. If all these tests are negative, we feel that the child escaped infection. At no time do we label a child *luetic* simply because the mother's serology is positive. We feel that the child has a constitutional privilege to

an exact diagnosis. When the mother returns to our clinic post partum, we begin treatment for our second and third major aims. We try to give enough treatment to cure or arrest the disease. Here we employ all our antiluetic drugs: neoarsphenamine, bismuth, mercury and iodides. At each clinic visit the patient's blood pressure is determined and a urine analysis is run. Incidentally, we find that bismuth has a beneficial effect on hypertension.

It must be remembered, however, that not all cases of syphilis complicating pregnancy diagnosed by us received treatment. In many instances our patients reported only at term or in labor and while the blood tests disclosed syphilis the patient did not receive any prenatal treatments and failed to return for postnatal care. Some of our patients were receiving anti-luetic treatment in various other clinics in the city and received from the center only obstetrical care. In our Luetic Clinic, we treated 247 patients. Of these 247 patients who received specific treatment during pregnancy, we were able to follow up only 116 cases. On these 116 patients we have complete data as to the results of our specific therapy. Our patients come from that class of our underprivileged families who lead a life of nomads. Often they move their residence each week, frequently from one city to another. Hence, I believe that our social service worker performed a Herculean task when she succeeded in tracing 116 families.

These 116 pregnancies terminated in:

Premature delivery	3
Dead fetus	2
Live child	111

The serology of the 116 children take at various ages—from birth to age of six months was:

Positive	9
Negative	107

The serology of the 116 mothers taken during pregnancy was:

Negative	32
Positive	84

The postpartum serology of these 116 women was:

Negative	63
Positive	53

These 116 cases were divided clinically into the following stages of syphilis:

Primary	1
Secondary	10
Latent	93
Prenatal	12

The diagnosis of syphilis of the mother was made in the following months of pregnancy:

1st	2
2nd	4
3rd	8
4th	18
5th	17
6th	30
7th	28
8th	7
9th	2

The age of our patients varied from 15 to 41 years of age:

Age 15 to 21	28
Age 21 to 31	57
Age 31 to 41	28
Age over 41	3

As to race our patients were divided into:

White	29
Colored	75
Mexican	12

We made a special effort to study the nine infants who were born with a positive serology:

1. Mother had Lues I—Diagnosis was made in 7th month. Received 7RX. Lues (Latent Lues).
2. Mother had Latent—Diagnosis was made in 7th month. Received 5RX.
3. Mother had Lues II—Diagnosis was made in 8th month. Received 2RX. Lues (Latent Lues).
4. Mother had Latent—Diagnosis was made in 6th month. Received 9RX.
5. Mother had Lues II—Diagnosis was made at term. Received none. Lues (Latent Lues).
6. Mother had Latent—Diagnosis was made in 5th month. Received 2RX. Lues.
7. Mother had Latent—Diagnosis was made in 4th month. Received 10RX. Lues.
8. Mother had Latent—Diagnosis was made in 6th month. Received 12RX.
9. Mother had Latent Lues—Diagnosis was made in 6th month. Received 11RX.

Do we fail in our aims? Are syphilitic children born to our patients? Unfortunately, *yes*. The *reasons* for our failures, however, can not be entirely laid to lack of medical care or to the inefficiency of our methods. Our failures are due to:

1. Low intelligence quotient of some of our patients so that they report to the prenatal clinic only in the last trimester.

2. Lack of adequate follow up work on account of insufficient finances.

3. Lack of cooperation of our public health department, or lack of sufficient laws to enable

the public health department to enforce treatment.

It is my belief that every woman who has syphilis is in a contagious and infectious stage of the disease throughout her child bearing period. The clinical classification of syphilis may place her infection in the latent stage but, nevertheless, she is ever ready to transmit the disease to her offspring. A pregnant syphilitic woman who refuses or willingly neglects treatments is as much a danger to the welfare of a community as a case of smallpox, and much more than a leper. Such individuals who know that they have syphilis, who know that they may transmit the disease to their child and yet refuse treatment should be by *law* quarantined in a contagious disease hospital for the sake of the unborn child, and for the sake of mankind.

It is my sincere hope and wish that the coming decade will bring a generation of social minded physicians who will think not only in terms of individual welfare but in terms of social and national welfare, that our medical social service workers will look upon the presence of delinquent luetic patients as a reflection against their proficiency and efficiency and professional competence, and that our health departments both municipal and national will react with the same anxiety to the presence of a single new case of prenatal syphilis in their community as they do now to a case of smallpox. The complete eradication of congenital syphilis from our midst is medically possible. May that day be with us soon.

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BIBLIOGRAPHY

1. Stillians, A. W.: Kolmer Wassermann Reaction in Pregnancy. Arch. of Derm. and Syph., 17: 318, 1928.
2. Kilduffe, R. A.: Clinical Interpretation of the Wassermann Reaction. Page 89. Phila. Lea and Febiger, 1926.

PHARYNGEAL DIVERTICULA

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Formerly in the literature, the pulsion type of diverticulum, which arises from the lower end of the pharynx, was termed "Esophageal Diverticulum" by Gerard, Goldman, Halstead, Bevan, Jackson, Judd, Lahey, Mayo, Murphy and Zenker. More recently, Judd, Lahey and others have written of these diverticula under the title of "Pharyngeal Esophageal Diverticula." Moynihan states, "There is no such thing as 'Pharyngo Oesophageal' Diverticulum. There are 'Pharyngeal' Diverticula and 'Oesophageal' Diverticula." In his opinion, these are pharyngeal. Most authors writing on this subject now are in accord with his view.

The site of origin of these diverticula has been quite definitely demonstrated—that they arise from the lower posterior wall of the pharynx above the sphincter formed by the cricopharyngeus muscle, and that they do not occur in the Laimer Haeckermann area as was formerly thought to be the case. Zenker's name should not be attached to these interesting sacs as they were most accurately described and perfectly illustrated by Ludlow in a letter to William Hunter in 1764. His specimen of a "Preternatural dilatation of, and bag formed in, the pharynx" is still perfectly preserved in the Hunterian Museum at Glasgow. Monro, Sir Charles Bell, Matthew Baillie and others gave accurate descriptions of the condition.

Various authors have spoken of "Lainer Hackerman area." It is "Laimer," who was prosector at Graz, and "Haeckermann," now of Bremen (Thesis dated 1891), in whom interest centers. To correct the spelling of these names, they become "Laimer-Haeckermann." Moynihan, in a forcible but friendly letter in the interest of accuracy, has called attention to the above named incorrect references and misspelled names. It is unfortunate that such an interesting subject as this has been described under various titles. In reviewing the literature, many excellent articles may escape one's notice. It is hoped that in the future, articles published on this subject will be correctly titled "Pharyngeal Diverticula."

These diverticula are generally described as occurring on the left side. At the present time, many right-sided diverticula are reported. In Sturgeon's series of cases, more than one-half were on the right side.

As to whether the operation shall be done in one or two stages, much can be said for both views. Moynihan, Jackson and others have all reported successful results from the one stage procedure. The majority of American operators, however, still operate in two stages. The main argument in favor of the one stage operation is that it is more surgically perfect if done in one stage instead of two. However, it is not comparable to a one or two stage prostatectomy.

The one stage operation will suffice when oper-

ation is done the second time, for recurrence. Here, in all probability, the prevertebral space with its lymphatics will be sealed off and the mediastinum well protected, should subsequent leakage take place.

The two stage operation gives excellent protection against the dreaded mediastinitis and entails very little additional hospitalization. The second stage of the operation is insignificant as to technical difficulties, or risk and discomfort to the patient. It is done under infiltration anesthesia about ten days following the first stage. The wound is re-opened to the neck of the sac, the neck of the sac ligated, sac removed and the wound closed; a small rubber drain being placed down to the stump of the sac.

Considering all phases applicable to the surgical treatment of pharyngeal diverticulum, it seems that the two stage operation offers much more security to the patient and should be the procedure to be followed.

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BIBLIOGRAPHY

1. Correspondence; Surg. Gyn. Obst., **54**: 128, 1932.
2. Jackson, Chevalier, and Shallow, Thomas A.: Diverticula of the Oesophagus, Pulsion, Traction, Malignant and Congenital. Ann. Surg., **83**: 1-19, 1926.
3. Judd, E. Starr, and Moersch, Herman J.: Pharyngo-Esophageal Diverticulum, S. Clin. N. America, **9**: 793-800, 1929.
4. Lahey, Frank H.: The Surgical Management of Pharyngo-Oesophageal Diverticulum, Surg. Gyn. Obst., Vol. **51**: 227-236, 1930.
5. McEvers, A. E.: The Surgical Treatment and Management of Pharyngo-Esophageal Diverticulum. Surg. Gyn. Obst., **53**: 525-532, 1931.
6. McClure, Roy D.: Pharyngeal or Pharyngo-Esophageal Diverticulum, Am. J. Surg., **24**: 732-743, 1934.
7. Moynihan, B.: Diverticula of the Alimentary Canal. Lancet, **I**: 1061-1066, 1927.
8. Sturgeon, Charles T.: Esophageal Diverticula. J. A. M. A., **92**: 379, 1929.
9. Ziegelman, Edward F.: Pharyngo-Esophageal Diverticulum Pulsion Type, Calif. & West. Med., **42**: 85-90, 1935.

X-RAY OF THE ABDOMEN IN LEAD COLIC—REPORT OF A CASE

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CHICAGO

Although it long has been recognized that lead intoxication is the possible cause of intestinal obstruction, there are few reports of cases, in the recent English and American literature, showing so complete an acute intestinal obstruction, clinically and roentgenologically, as to warrant an exploratory laparotomy. We present such a case stressing particularly the abdominal x-ray findings, about which very little has been written. Aub, in his personal experience, has seen only three such cases.

In a recent review concerning the value of the Roentgen ray in the diagnosis of intestinal obstruction the following criteria for the diagnosis of mechanical obstruction were established. "First, there must be a degree of distention of the small bowel beyond its normal lumen; second, this condition of increase must persist upon repeated examinations." The presence of fluid levels in the small bowel are important and corroborative, but by no means essential. While various lesions are reported that may present such a picture, no mention is made of the fact that lead colic may do so.

Aub, et al, in their monograph on lead poisoning, report that x-ray pictures taken during the acute phase of a very severe lead colic, following the ingestion of a barium meal, show definite areas of spasm of the intestinal musculature. This observation fits in well with the conclusions drawn from experimental lead poisoning of cats. It was shown that lead acts on the muculature of the small bowel of the cat in such a way as to produce areas of increased tonus and decreased motility, and that colic is probably due to a hypertonic peristaltic wave approaching such an amotile spastic area.

Considering the above mechanism it follows that if these amotile spastic areas maintain their increased tonus for any length of time, distention and stagnation may appear in the bowel proximal to the "obstruction" identical with that found in acute mechanical ileus. In such a case a flat x-ray plate of the abdomen taken a number of hours after the onset of lead colic may have the characteristic roentgenogram of intestinal obstruction. Our case does this.

CASE REPORT

C. P., a twenty-five year old white male, entered Cook County Hospital July 3, 1936. Except for occasional colds he had never been sick until ten days before entrance, at which time he became aware of abdominal cramps, periumbilical in location and not very severe. At the onset the pains occurred every two or three hours and lasted three to five minutes, and were accompanied by no vomiting, change of bowel habits, or urinary abnormalities.

Three days before entrance he was suddenly seized with severe mid-abdominal cramps which doubled him up. The pain did not radiate. He became nauseated

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and vomited a greenish material a dozen or more times. Morphine brought relief from the pain. During these three days he had no bowel movements. Three enemas were given without result. He ate nothing, as he was afraid of vomiting.

Inventory by systems was essentially negative except for the above complaints. The past history revealed an attack of measles and "blood poisoning" in 1919. The only previous surgery was a tonsillectomy. Venereal infection was denied.

For the three months previous to his admission, the patient worked in a casket factory polishing lead caskets. In the process of polishing, lead dust entered the air. He had always been careful to wash his hands before eating, and he handled his food in wax paper. He specifically stated that he knew of no fellow workers who had any of the symptoms from which he was suffering.

Physical examination on admission revealed a well developed, well nourished white male obviously in acute distress. His knees were drawn up and his hands clasped to his abdomen. T. 100.6; P. 80; R. 20; B. P. 160/90. The essential findings included a suggestive bluish discoloration of part of the gum margins, slight cervical adenopathy and normal heart and lungs. The abdomen was slightly distended, soft and tympanitic. There was no localized tenderness except over both costovertebral angles. Peristalsis was somewhat exaggerated, with occasional obstruction borborygmi, mostly bell-like tinkles but some gurgling borborygmi. Rectal examination was negative. The reflexes were physiological.

Laboratory findings included—R.B.C. 3,800,000 with 3 basophilic stippled cells per 400 R.B.C., W.B.C. 23,000 with polymorphs 84%, lymphocytes 13%, and monocytes 3%. Urine analysis was negative. The icterus was 9.

In view of the rather indefinite picture a positive diagnosis could not be made. It was the impression that a subacute intestinal obstruction existed. With the history of lead contact, a suggestive lead line, some stippling of the red blood cells, hypertension and obstipation, lead colic was considered most likely. Mechanical ileus and renal colic were also considered.

The distention and colic continued in spite of ileus therapy throughout the day. Enemas returned highly colored, but without fecal material. Fluoroscopy revealed dilated small and large bowel. Mineral oil taken by mouth returned per rectum six hours after administration. An emergency flat plate of the abdomen six hours after fluoroscopy revealed characteristic paralleling of the dilated small bowel loops, which was deemed to have increased during that time. (Fig. 1.)

Because of the acute onset of symptoms, the absence of previous constipation, the apparent absence of lead intoxication in other workers in the plant, a diagnosis of low grade mechanical ileus was considered possible. The apparent progression of the distention as indicated by fluoroscopy and roentgenography seemed to point toward this diagnosis. An exploratory laporotomy was done.

When the abdomen was opened (a right sub-umbilical paramedian incision was made), no mechanical obstruction was found. The small and large bowel were dilated and three areas of spasm, each less than two inches long, were found in the lower small bowel. An appendectomy was done.

Postoperatively the course was rapidly downhill. Peristaltic sounds which had become normal after operation disappeared; the temperature reached 105 degrees and the patient died 60 hours after operation.

Post mortem examination revealed an acute fibrinous peritonitis and hypostatic pneumonia of the right lower lobe. Examination of the organs by the coroner's chemist revealed 0.6 mg. of lead per 100 grams of liver; 1.08 mg. of lead per 100 grams of kidney. Tests for other heavy metals were negative.

Summary

1. X-ray plates taken during an acute attack of lead colic may fulfill the established criteria for the roentgenological diagnosis of intestinal obstruction.

2. Colic is a dynamic obstruction produced in the small intestine by amotile, tensely spastic hypertonic areas, which act to constrict the lumen.

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Fig. 1. Flat plate of abdomen showing "step ladder" arrangement of dilated loops of small intestine.

BIBLIOGRAPHY

1. Hartwell and H. S. F. Cooper: Intestinal Obstruction, Lewis System of Surgery, 7: Chapter 7, P. 11, 1929. Oxford Press.

2. J. Aub: Personal Communication.

3. R. Rendlich and M. Abrams: Intestinal Obstruction—Evaluation of the Roentgen Diagnosis, Ann. of Surg. Phila., 102: 1040, 1935.

4. Aub, Fairhall, Minot and Resnikoff: Lead Poisoning, Medicine, 4: 161-164, 1925.

Healing of fractures is definitely retarded or prevented when there is a marked deficiency of vitamin C. Considerable research and clinical observation in this connection indicate the advisability of insuring an adequate intake of vitamin C for patients with fractures. Edit., *Brit. M. J.* 2:980, 1936.

MODERN MANAGEMENT OF VARICOSE VEINS

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The modern treatment of varicose veins, consisting of ligation and injection, has become widely accepted, and has almost entirely replaced the older forms of therapy. Since its introduction, however, it has undergone a gradual evolution, the successive steps of which have tended to diminish the discomforts, eliminate the dangers and improve the results of management. This development has followed two main trends, the search for an ideal sclerosing agent and a growing emphasis on the importance of the hydrodynamic problems involved. The latter has resulted in ligation becoming an indispensable factor in an ever increasing percentage of cases, with more and more insistence upon the highest possible site of ligature. It has also given rise to the attempt to obliterate the highest portion of the saphenous trunk by the peripheral injection of sclerosing solution at the time of ligation. Cumulative experience has stressed the necessity of adequate therapy, failure of which is responsible for most of the unsatisfactory results obtained.

The approach to the treatment of varicose veins requires a clear conception of the problems entailed. The anatomy and normal and pathologic physiology of the venous circulation of the lower extremities must be kept in mind. To briefly summarize the anatomical arrangement, the venous return from the lower extremities is effected by two sets of veins, the deep and the superficial. The former lie deeply imbedded in the heavy muscles of the leg. They are equipped with valves which open upward, and permit the blood to flow toward the heart, but prevent its reflux in the opposite direction. Because of the support afforded these vessels by the surrounding muscles and the pumping action they exert, the deep veins cannot dilate or become varicose. The second set of veins, consisting of the long and short saphenous veins and their tributaries, are superficial, and lie in the soft and yielding subcutaneous tissues. They, too, have valves which enable them to convey the blood upward, against gravity. Lacking external support and the aid of muscular pumping, however, they must depend upon their inherent strength and elasticity for withstanding the hydrodynamic pressure exerted upon them. Whenever the stress on the vein wall becomes greater than the capacity of that wall to support, stretching or dilatation ensues. If the diameter of the vein exceeds the combined length of the two valve cusps, closure of the valve becomes impossible, and reflux occurs.

A third component of the venous drainage of the leg which receives little attention from the anatomists, but which is of enormous significance physiologically, is the series of communicating veins. These vessels, which are variable in position, size and number, perforate the deep fascia and anastomose the superficial and the deep veins. They are also supplied with valves which open inward to allow blood flow from the superficial to the deep veins, and to prevent regurgitation. Thus, the blood from the superficial areas of the leg may reach the trunk by way of the saphenous vessels which terminate in the deep veins, or by way of the communicating veins, into the deep ones and thence up to the heart.

Before undertaking to treat a patient for varicose veins, it is essential that the status of the venous circulation be determined. For this, the Trendelenburg test is indispensable. This test consists, as is well known, in emptying the superficial veins by elevating the extremity, applying pressure by means of a tourniquet about the thigh, or better, by digital compression over the sapheno-femoral junction, and observing the filling of the veins when the patient resumes the standing position. There are three possibilities. In the limbs with normal venous circulation, while the constrictor is in place, the veins fill slowly from below upward, as arterial blood reaches the capillaries, thence the venules and eventually the large superficial vessels. If the pressure above is released, no additional filling is seen, as the functioning valves prevent reflux from above downward. This is designated a negative Trendelenburg test.

In patients with varicose veins, the test is invariably positive, as the definition of the condition implies. In such instances, filling from below is as slow as in the normal. But when the pressure is released, there is visible and palpable filling from above, indicating beyond any question, that the valves in the saphenous system

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are incompetent and that the direction of blood flow in those vessels is reversed.

In a very occasional patient, the valves in some of the communicating veins may be incompetent. This is usually a sequel to phlebitic disease of the communicating veins, in which the valves have been damaged. In such patients, the saphenous veins may also be varicose. When the patient stands, while pressure is still applied above, the veins fill rapidly from below, becoming distended in from five to fifteen seconds, instead of the usual forty-five to sixty (thirty seconds has arbitrarily been taken as the limit of abnormally rapid filling). This rapid filling indicates that, as a result of the incompetence of the valves in the communicating veins, the blood flows unimpeded from the deep veins to distend the superficial. By varying the site of compression, the exact location of the incompetent communicating vein may be determined. If the saphenous trunks are also varicose, removal of the pressure permits further filling from above downward. When this is present, the test is considered to be doubly positive. Under these circumstances, there may be severe crippling of the return circulation from the superficial structures. Fortunately, this status is but rarely encountered.

Reversal of the direction of blood flow, as is indicated by a positive Trendelenburg test, represents the fundamental physiological disturbance due to varicose veins, and constitutes the indication for treatment. Irrespective of what has gone before, if the Trendelenburg test is positive, it shows that the superficial veins have not only lost their function as veins, but are actually interfering with the return flow by permitting reflux in the opposite direction. Under such circumstances, the circulation would be improved if the incompetent veins were removed or destroyed. This forms the basis of the entire philosophy underlying the treatment of varicose veins.

We recognize but one absolute contraindication to obliterative treatment, namely, active inflammation of the varices. Even this contraindication is not universally respected, some authors even advocating obliteration as treatment for phlebitis of varicose veins. There are, in addition, several relative contraindications, those that apply to all non-imperative therapeutics. They include concomitant diseases more serious than the one under treatment, and which might be aggravated by the treatment under consideration. Thus, we do not advise active treatment in patients of advanced age, in the presence of severe cardiac or renal disease, or in hyperthyroid states. Controlled diabetes or compensated cardiac lesions do not contraindicate treatment. Treatment may be instituted during the early months of pregnancy, if the veins are of such proportions as to cause material discomfort. During later stages of pregnancy, palliative measures should be relied upon. The injection of quinine-containing solutions may be injudicious during pregnancy.

A history of old deep-vein phlebitis does not contraindicate treatment for varicose veins. The text-books warn that, in such patients, the enlarged superficial veins may be compensatory for the occluded deep ones, and that dire results might follow their destruction. The danger is exaggerated. Persisting occlusion of the deep veins is one of the rarest phenomena encountered in the study of venous diseases of the extremities. Furthermore, if the Trendelenburg test is positive, as is almost always the case, the superficial veins are carrying the blood away from the heart. Since there are only two possible routes by which the blood may leave the extremity, the deep veins must be open.

If there is any doubt as to the patency of the deep veins, the Perthes test may be applied. This is somewhat on the order of a reversed Trendelenburg test. The patient is allowed to stand until the superficial veins become tense and engorged with blood. The constrictor is then applied and the patient kicks the foot fifteen or twenty times. At the end of the period of exercise, the veins are found to be emptier than they were at the beginning of the test. The explanation is obvious. With each contraction of the muscles, the blood is forced upward out of the deep veins. When these are emptied, blood from the superficial veins is drawn through the communicating veins, into the deep ones, thence back to the heart. Inasmuch as the constrictor was in place during the period of exercise, it could not have left the extremity through the superficial veins; therefore, it must have gone through the deep ones. A simple modification of this test is to apply the constrictor, and then elevate the limb. The veins empty, indicating that the deep veins are patent.

The choice of treatment in a given case is also dependent, largely, upon the Trendelenburg test. If the tributaries of the long saphenous are affected, as is most frequently the case, reflux is almost always from the sapheno-femoral junction downward. In many such instances, the long saphenous is not palpably enlarged above the knee. If careful search is made over the foramen ovale, however, a tense, dilated saphenous trunk can usually be palpated. Trendelenburg test by finger pressure over this point indicates beyond any question that the reflux begins at the junction of the saphenous vein with the femoral. In such patients, it is obvious that injection of the varices below the knee, without preliminary ligation, is inadequate. Obliteration in the face of excessive back pressure, like damming a swiftly flowing stream, is difficult, if not impossible. At best, many injections are required, and if obliteration is effected, recurrences within a period of months is the rule. In accordance with the laws of hemo-dynamics, early canalization of the thrombi occurs, or new vessels dilate to take the place of those occluded. By far the most important single cause of failure or recurrence in the obliterative treatment of varicose veins is failure to do ligation in cases in which ligation is indicated.

The indication for ligation depends, then, upon the amount of back pressure within the veins; and the site of ligature is determined by the source of the back flow. In large varicosities involving the saphenous trunk to the groin, or in those below the knee in which the tension is great, the indication is absolute. When the veins are small in size and number, and if the tension is slight, the indication is relative. Whenever injections fail to achieve their purpose, ligation is usually needed. Varicosities of the short saphenous can usually be made to respond to injections alone, and rarely require ligation. The explanation for this, as Edwards has pointed out, lies in the fact that the terminal portion of the short saphenous vein is subfascial, hence supported, and that its opening into the popliteal vein is guarded by efficient valves.

The site of ligation is important. Edwards[1] has pointed out that the evolution of saphenous vein ligation is an upward progression of the site of ligature. Our own experience has undergone a similar evolution. Ligation of the saphenous trunk in continuity is almost invariably followed by the development of collaterals in the scar, bridging the severed ends of the vessel. The saphenous trunk must be divided at its point of confluence with the femoral, above its uppermost tributaries. Reduplications of the saphenous must be looked for, and if present, also tied and cut. If some of the reflux is due to incompetent communicating veins, such anastomotic vessels must also be severed at their junction with the superficial veins.

Even when the ligature has been placed in the correct position, an occasional recurrence is seen. In such cases, at reoperation, numerous small tributaries may be found entering the saphenous trunk from all directions, carrying into it a sufficient quantity of blood to provide a material degree of reverse pressure. This infrequent recurrence can be prevented if the proximal portion of the trunk is obliterated in situ, so that there is no waiting channel into which such veins can open. This is best accomplished by injecting it at the time of ligation, when the vessel is exposed. Later injection may be difficult or impossible because the saphenous trunk lies deeply buried in the fatty tissues of the thigh. Palpation of the vessel is rendered still more difficult by the absence of tension within it, due to the ligation. The injection of a small quantity of sclerosing solution at the time of ligation is remarkably effective because of this stasis, and often results in obliteration of the entire saphenous vein.

The technic of ligation merits little attention in this discussion. If the simultaneous injection of the saphenous trunk is to accompany the ligation, hospitalization for twenty-four hours may be desirable, although in our clinic ambulant ligations are still the rule. Marking the position of the vein in the foramen ovale, while the patient is in the standing position obviates the need for undesirable dissection in search of the vessel. The operation is regularly done under local anesthesia, using one per cent. procaine solution. Caution against injecting the anesthetic solution into the lumen of the large blood vessels of the area is urged. An oblique incision, parallel to the lines of cleavage of the skin leaves the least disfiguring scar, and gives satisfactory exposure. Emphasis is placed on the avoidance of trauma to the vein during the dissection, especially until the central ligature is placed. The vein is isolated above its highest tributaries, and

doubly ligated with catgut. Before the distal ligature is tied, 2 cc. of sclerosing agent (sodium morrhuate) are injected peripherally, and the ligature is pulled taut as the needle is withdrawn. The vein is then divided between the two knots. Two or three interrupted cutaneous sutures suffice for closure. A spica of elastic bandage or stockinette is applied over the dressing to minimize the accumulation of blood or serum in the wound and, in ambulant operations, to secure against hemorrhage from a slipped ligature after the patient leaves the operating room.

As a result of the distal injection, the saphenous trunk usually becomes obliterated from the groin to the knee, and sometimes even lower. The amount of phlebitis induced produces, of course, a corresponding degree of discomfort and disability. This is rarely severe enough, however, to require recumbency. Moderate activity is permitted from the first, and within a very few days, a full range of activity is possible.

Injection of the remaining veins is begun as soon as the wound has healed, and the reaction has subsided. Remarkably few injections are required for the complete eradication of varices following ligation and injection, as compared with the numbers formerly needed. The technic of injection is as simple as it is possible to make it. If the veins are large enough to be seen with the patient in the sitting position, the leg is kept horizontal; if not, the patient is injected in the standing position. We do not use tourniquets, occluders or other technical devices. The skin over the vein to be injected is cleansed with alcohol, the needle is inserted, and when free back-flow into the syringe is assured, the solution is injected. Gentle pressure with the tip of the left index finger at the site of injection gives assurance that the solution is entering the vein, and, at the same time, empties that portion of the vein of blood. As the needle is withdrawn, a pad of gauze or felt is applied with a strip of adhesive tape to compress the vein at the site of injection. As a rule, two injections are given at a sitting, although this is purely arbitrary, and the sittings are repeated at intervals of one week.

As to the choice of sclerosing agent, we have almost entirely abandoned all others in favor of solutions of soaps of fatty acids, of which sodium morrhuate is the prototype. The action of these soaps is entirely non-specific, and we use the morrhuate and simple potassium oleate interchangeably. These solutions are painless, effective in small doses, non-toxic and have little tendency to cause sloughing if injected, in part, outside the vein wall. The only type of unfavorable reaction we have encountered is an occasional allergic response in persons sensitive to these substances. To avoid the risk of such reactions, we have advocated[2] a preliminary trial injection not to exceed ½ cc. before instituting full dosage. In patients who are to have ligations, we give a preliminary injection, in order to permit a full injection at the time the ligation is done. The dosage of these solutions varies from ½ to 2 cc., and average about 1 cc. In the rare patient who is sensitive to the soaps, and we have found that those intolerant towards sodium morrhuate also react to potassium oleate, we use quinine and urethane as the sclerosing medium.

With the management here described, the treatment of varicose veins has proved essentially satisfactory. It requires comparatively little time and gives promise of lasting benefit. The results have improved with each step in the evolution of the modern procedure, until now it is felt that, with adequate therapy, most patients with varicose veins can be given relief.

Summary: The modern treatment of varicose veins, by ligation and sclerosing injection, gives satisfactory results and promise of permanent relief. Emphasis is placed on the hydrodynamic problems involved and the importance of the Trendelenburg test in determining the indications for and the site of saphenous trunk ligation. Peripheral injection at the time of ligation further reduces the likelihood of recurrence. Solutions of saponified fatty acids, of which sodium morrhuate is the prototype, have proved to be the most satisfactory sclerosing agents as yet available. The application of the tests of venous circulation and the technic of ligation and injection are described.

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BIBLIOGRAPHY

1. Edwards, E. A.: Treatment of Varicose Veins. Surg. Gyn. and Obst., 59; 916, 1934.

2. Zimmerman, L. M.: Allergic-Like Reactions from Sodium-Morrhuate. J. A. M. A., 102: 1216, 1934.

A distinguished doctor at a lunatic asylum went to the telephone and found difficulty in getting his connection. Exasperated, he shouted to the operator.

"Look here, girl. Do you know who I am?"

"No," came back the calm reply, "but I know where you are!"—*Canadian Doctor.*

HYPOTENSION OR LOW ARTERIAL PRESSURE

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Almost every day a case of low blood pressure is seen. It is a common occurrence in clinics and private practice for some individual to enter the office and give, as a reason for being there, that they have low blood pressure. This one thing is so impressed on their mind that it is with great difficulty that the physician is able to secure any kind of a history—or even a satisfactory physical examination. Then again a patient may give a vague train of symptoms and upon examination a low pressure will be found. Thus it is found to be a very common cause of trouble, the victims being at best under par and easily fatigued. In these patients, often thought by their friends and doctors to be neurotic and neurasthenic, the hypotension factor is very often neglected, but even more than the neglect of the low blood pressure, is the neglect of the thing causing this condition. Therefore the condition of low arterial pressure is becoming a very important factor in medicine.

In the year 570 B. C. was the apparent first study of the pulse in health and disease by Herophiles. Various men gave some study through the ages to the circulation, considering pulse and blood pressure as best they could, but came to no definite conclusion. They had no means to connect their findings, no instruments which could be used, and as a result most of the knowledge, regarding blood pressure, has been gained during the past 30 years, since the advent of the mercurial manometer.

Today the sphygmomanometer, with its column of mercury, shows variations in the blood pressure just as a thermometer shows variations in the temperature, such as normal, sub-normal temperature and fever, by the mercury column. We meet all three phases of blood pressure many times in health and disease but our medical knowledge remains inadequate until all three phases are definitely understood.

There are certain accepted standards for normal blood pressure and the significance of high arterial pressure is generally appreciated. There is also a great amount of clinical facts concerning low arterial pressure but what we need is correlation of this knowledge. When this is accomplished we may have a means of solving some of the puzzling questions in regard to abnormal variations in health and disease. Variations in arterial pressure should be regarded as evidences of altered physiological or pathological functions.

In the first place it is necessary to define hypotension and designate some mark for a division between normal and hypotension. Hypotension is the diminished or lowered tension in the arterial system and it has been generally agreed that 110 mm. of mercury or lower, when found in an adult, may be regarded as low arterial pressure. The diastolic pressure reading has not been brought into this consideration, since it has been found that there are changes in levels of this reading with very little significance in the general condition. The pulse pressure changes also seem to have little significance.

The arterial blood pressure is dependent upon four factors: 1st, the contracting force of the left ventricle or the energy of the heart. 2nd, the quantity or volume of circulating blood propelled by the contraction in the full arteries. 3rd, the elasticity of the vessels which is dependent upon the middle coats of the large arteries. 4th, the peripheral resistance.

Each ventricular systole forces about 60 ccs. of blood into the aorta. Assuming that the other three factors remain constant the pressure must rise whenever the energy of the heart is increased, and fall whenever it is decreased. The output of the ventricle is proportional to the cardiac energy and is based on the following factors: The volume of each discharge, the frequency of the repeated discharges or beats, and the force with which this is accomplished.

The elasticity of the vascular system presents itself as alternate distension and elastic recoil of the vessel wall and is due largely to the connective tissue framework. The aorta is not supplied with muscle cells and as a result merely serves as an elastic reservoir. The recoil of this vessel plays a great factor in the onward movement of the blood during the period in which the heart is resting. When the elasticity of the aorta is diminished by any means the pressure rises, also when anything causes unusual relaxation the pressure is lowered.

In the peripheral resistance the main factor

The President's Annual Address, before Madison County Medical Society.

concerned is the arterial-capillary outlet. The arterioles have a heavy covering of smooth muscle tissue which, because of its contractile power, is able to diminish the outlet in the capillary system. This part of the system serves as a gate, which may be opened to a variable degree, the pressure rising if closed and lowered if open.

It would be a fairly easy problem to analyze changes in the blood pressure if only one of the four factors mentioned were affected. However there is usually a variable combination of two or more of the factors which will cause a very much more confusing condition. Similar complaints or findings need not be caused by the same variation in these factors.

Up to the present time there is no agreement as to the eiology of low blood pressure. That which is known seems to point to a definite underlying cause. Otherwise how are the many unrelated diseases and abnormal conditions, in which low arterial pressure is found, to be explained? Blood pressure is a function of the circulation as a whole, and the factor most frequently concerned in its variation, as to the lower end of the scale, is the vasomotor mechanism. There are some who claim low blood pressure is not a disease but in many instances of a diseased bodily state. To many persons low blood pressure may be compatible with perfect health. If we accept the definition that health is the state of an organism in harmony with its surroundings, and disease is the state of the organism in conflict with its environment, we will find that many persons have low blood pressure in both health and disease. We can find persons who go through life doing their work, enjoying themselves, and who have low blood pressure. The physician may find some conditions which he can point out as possible differences in this individual but which have in no way affected his health and always considered as personal characteristics, making him a different type. In fact we cannot give any single cause for all types of hypotension. Usually there may be the influence of several factors, such as structural change, disturbed nervous and chemical influences, which induce abnormal function. The resulting pathologic physiology is difficult to explain, since there is a lack of agreement between clinicians and the physiologists and biochemists.

We find hypotension in healthy individuals as well as diseased people. The instance of low arterial pressure in a group of healthy individuals shows a surprising constancy. Extensive observation reveals that in a cross section of population between the ages of 17 and 30, there is an average of 3.5% occurrence of low blood pressure. This average is found by taking groups of all walks of life. However if we study a group of apparently healthy people, such as bank clerks, at the similar age, you will see something entirely different. In this special group 38% of the males and 55% of the females have a hypotension. This is a very interesting factor. It may be explained by saying that the individual, with a constitutional tendency to low blood pressure, is unable or unwilling to cope with rugged life and therefore hunts seclusion or the protection given by inside work. In a previously healthy individual, who has developed low blood pressure, we think of the disease being the factor causing the low pressure. Thus if there is a tendency to low pressure it need not be as severe a disease to lower the pressure to a still lower point.

The following table or list, taken from "The Cyclopedia of Medicine," Volume 3, Page 320 and 321, will serve to suggest where we can or will encounter hypotension.

"IN HEALTH"

Infancy
Childhood
Adult, constitutional type
Racial tendency
Geographic location
Climate
Atmospheric conditions
Body weight
Body build
Exercise
Posture
Respiratory system
Heart
Bloodvessels, capillaries
Automatic nervous system

"IN DISEASE"

Constitutional diatheses
Disorders of respiratory system
Disorders of heart
Disorders of bloodvessels
Disorders of blood:
  Chemical
  Physical
  Morphological
Endocrine system
Disorders of nutrition:
  Diabetes
  Deficiencies
  Cachexias

Physical and nervous exhaustion
Shock:
Medical
Surgical
Acute infectious diseases
Chronic infections:
Focal
Tuberculous
Syphilis
Acute intoxications:
Chemical agents
Food poisoning
Drugs

As to the symptoms these may vary greatly with the individual patient. Some will paint a very vivid picture for the doctor, making it hard in some cases for him to pick out all the essential points. In other cases they will give such a vague history and so few symptoms that it is hard for him to come to any definte conclusions. The 3.5% of humanity, with the essential hypotension, are in the front line and in case of unfavorable conditions will be the first to show the symptoms. The symptoms may be local or general. The most common symptom is the loss of their former sense of well being, this being replaced by early fatigue and physical exhaustion. They may also have motor instability. They may have apprehension, fears, nervousness, insomnia, inability to concentration, especially on anything except themselves, inattention and headache. Some have a ringing of the ears and generalized neuralgic pains, which are short, sharp and in various parts of the body. Some have abdominal pains, others have a sensation that their arms and limbs are going to sleep, also other parasthesias. Often there are precordial pains, which are often indistinguishable from true anginal pains, resulting in cause of great anxiety, both to the patient and to the doctor. There may also be dizziness, palpitation, faintness and syncope. All these symptoms are often brought on by exertion or any exercise which is more than the patient has been accustomed to doing. Also they may be brought on by overeating.

In infancy the pressure is about 55 mm. of mercury at birth and gradually increases. In childhood, up to about 10 years of age, the pressure gradually increases to about 90 to 100 mm. of mercury, with adult pressure usually being reached at about 18 years of age. It is shown that hypotension, in healthy adults, according to many insurance companies, make exceptionally good risks and usually live longer than expectancy, especially when the hypotension occurs after 50 years of age.

During sleep it has been found that the blood pressure falls, depending upon the depth of the sleep. If the person is restless during the sleep, the blood pressure may be increased to as much as 200 mm. Thus it has been shown that the blood pressure varies in response to the exercise and also to the type of exercise, depending upon the degree of muscular activity involved in the exercise.

It has also been found that there is a fairly definite relation between blood pressure and body weight at all ages. It is seen that in people who are obese, the blood pressure usually is at a higher point than for an average weight individual. It is also very often seen that in tall slender people the blood pressure is below normal. However we naturally can find cases which are exactly the opposite in any these conditions.

In most of the acute infectious diseases we find there is a lower blood pressure. The drop in pressure being more marked in some than in others. The following usually have a hypotension:

A. Typhoid fever: Except in certain complications the pressure usually gradually drops.

B. Pneumonia: Hypotension is usually found in the majority of cases, although it may not be present in severe cases.

C. Influenza: Usually present during the acute stage.

D. Diphtheria: Severe cases usually have a marked hypotension.

E. Scarlet fever: Pressure variations are not uniform and usually when present is due to vasodilation and weakness of the left ventricle.

F. Cholera: In the algid stage blood pressure usually falls.

G. Malaria: Hypotension is not always present but in severe cases may be very marked.

H. Epidemic cerebrospinal meningitis: Especially in adults, in severe cases there may be a very low blood pressure.

I. Typhus fever. Usually a very marked hypotension.

J. Trichinosis: Several cases have been reported where there is a very marked hypotension.

Hypotension is also found in several chronic diseases, such as the following:

A. Tuberculosis: In the markedly advanced stage where there is pronounced toxemia, a marked hypotension is the rule. In the early stages there is usually not constant hypotension.

B. Syphilis: Ordinarily there is no hypotension present in the early cases, but when it does occur it is due to a myocardial degeneration. Syphilis of the

adrenals probably would produce a marked hypotension.

C. Diabetes: Probably has little effect upon blood pressure.

D. Addison's disease: One of the outstanding features of this condition is the marked hypotension, although it is not necessarily present.

E. Food deficiency diseases: Usually present but not to a very marked degree.

F. Bronchial asthma: The hypotension in this condition is usually due to the lack of vasomotor tone, which is due probably to anaphylactic shock, as a result of a toxic split protein circulating in the blood.

G. Focal infections: Such as chronic inflammation of the tonsils, teeth, accessory nasal sinuses, gall bladder, etc., are frequently accompanied by marked hypotension. It may be a sign of great diagnostic value.

H. Non-infectious chronic arthritis: Certain cases of chronic arthritis apparently depend upon endocrinopathies, especially disorders of the thyroid. There is a low metabolic rate with lowered physical tone, bradycardia and hypotension.

I. Anemia: In those cases not due to hemmorhage there is often great hypotension. In pernicious anemia the pressure even goes as low as from 60 to 80 mm.

J. Cachexia: In advanced cases there may be an extreme hypotension.

In certain constitutional diathesis hypotension may occur.

A. Status lymphaticus: In this case low blood pressure is due to cardiovascular hypoplasia, with its resulting diminution in driving power.

B. Infantilism: Hypotension occurs practically in every case.

C. Myasthenia gravis: Low blood pressure usually present and although we cannot say the condition is due to a thymic lesion, irradiation of the thymus is usually followed by improvement.

D. Adiphosis dolorosa: There is absolutely no agreement as to the cause of this condition, although the theory of endocrine mal-function appears best suited to explain the symptoms. Hypotension appears to be related with this gland lesion.

There are certain mechanical factors which seem to cause hypotension.

A. Postural change: Usually on arising from a supine position there is a slight drop in systolic pressure, a rise in diastolic pressure and a rise in pulse rate. The diagnosis of postural hypotension can be made upon the following phenomena:

1. Syncopal attacks on change of posture with a drop of the systolic blood pressure to the shock level.
2. Anhidrosis.
3. Increased distress during the heat of the summer months.
4. Slow and unchanging pulse rate with marked variation of the blood pressure.
5. Slight decrease in the basal metabolic rate.
6. Signs of slight and indefinite changes in the central nervous system.
7. Blood urea at the upper normal level.

There may also be a false general appearance of youth in comparison to the true age. Pallor of the skin and mucous membranes and secondary anemia.

B. Body Habitus: It is not proved that this condition itself causes hypotension.

C. Effects of exposure to high temperature: It has been shown that this causes a marked dilation of the peripheral vessels, causing a relative diminution of blood volume.

D. Variations in atmospheric pressure: It is known that there is a disturbance of physiologic function resulting from high altitudes, as a result of the deficiency of oxygen.

It has been shown that various tissue extracts have a depressor effect on blood pressure. It was formerly thought that hystamine was the only constituent of tissue extracts, capable of lowering the blood pressure, but probably this is not true, as some very good effects seem to be secured by injection of liver extracts in treating hypertension. Such glandular extracts as parathyroid extract and thyroid extract appear to have a slight ability in reducing blood pressure. Along with other drugs and tissue extracts it is shown that extracts from reproductive organs, both male and female, have an influence to reduce the pressure.

Various drugs appear to have a definite action on lowering blood pressure, and must be watched when being used. The nitrite group should not be used in marked arterial hypotension, or in shock. Alcohol in large quantities causes a marked fall in pressure, and is not advisable, as a stimulant, in conditions of low blood pressure. Quinidine sulphate usually causes a drop in blood pressure on being used intravenously. Salvarson causes a reduction of blood pressure but usually not to a degree to endanger the individual when being treated, however, in cases of marked hypotension, injection should be made cautiously. Cinchophen has been known to cause a drop in the pressure. Caffeine in cardiac inefficiency causes a drop in blood pressure by dilating the coronaries.

We have temporary or acute hypotension and essential hypotension. The acute are caused by anaphylactic shock, traumatic shock, surgical shock and from anesthetics. The anesthetics cause a fall if used over a long time. Chloroform causes the earliest fall; ether, a less marked action; nitrous oxide-oxygen, very little fall unless used over two hours.

After considering the foregoing we may well ask "What is the outlook for the individual with

low arterial pressure in health or disease?" As was pointed out earlier after middle life there seems to be a better life expectancy. This is not necessarily due to the fact that they can stand more but on the other hand protect themselves so there is not so great a chance for trouble. In sickness and operations a gradually falling pressure is usually unfavorable. However if the pressure is sustained, although low to start, the prognosis is good.

As to the treatment of this condition there is no specific drug or method. The physician must be ready and willing to use whatever he deems necessary for the good of the patient. What proves useful in one case, will have no effect in another case. If there is a specific disease or cause, this is naturally treated, with a satisfactory result secured for the patient. If no cause can be found then the result will very probably be a failure.

The point that I should like to bring out is that the public hears a great deal about hypertension; and this same public, in general, does not hear so much about hypotension. Fortunately, hypotension is not nearly as dangerous as is the case of hypertension. "Hypotension is not necessarily confined to the asthenic person, or to the patients of little efficiency. It can and does occur, not infrequently, in persons of normal build, of hyperstenic habitus, in quite normal efficiency, or normal weight or even in the obese; and per se essential or incidental hypotension is attended with little or no clinical significance."

It is well to remember that the chief cause appears to be physique, and this in turn is determined largely by heredity. The physician must recognize many points of importance and attempt to correct them. He must recognize the importance of correct feeding in all ages, and counteract the fad of dieting to become excessively thin, which has, undoubtedly, contributed to the number of people who are victims of this condition.

It is necessary to realize the importance of climate, proper clothing, maintenance of normal body weight, need of daily physical exertion, sufficient hours of rest and healthy posture. Avoid things which cause cardiac and circulatory strain. Avoid over taxation of the nervous system. Prevent or remove infections, avoid endogenous and exogenous intoxication and correct the endocrine disturbance when possible.

REFERENCES

1. The Cyclopedia of Medicine, Volume 3.
2. Med. Clinics of N. America, 19: 865, 1935.
3. Current Medical Digest, December, 1935.
4. The Grolier Information Service.
5. Tice: Practice of Medicine, Volume 6.
6. Practitioners Library of Med. and Surg., Volume 3.
7. Following articles from Tice Consulting Bureau Service:

Friedlander, Alfred: Hypotension. Medicine, 6: 147, 1927.

Weis, Clifford R.: Postural Hypotension with Syncope. Ann. of Int. Med., 8: 920, 1935.

Garvin, John D.: Hypotension. J. A. M. A., 88: 1875-1876, 1927.

Myers, Bernard: Post Grad. Med. J., 9: 61, 1933.

Burton-Opitz, R.: J. M. S. of N. J., 28: 302, 1931.

Fisher, W. E.: Hypotension. M. J. of Australia, 1: 110, 1935.

Deonzelot, E.: Acute or Paroxysmal Hypotension. Paris Med., 24: 391, 1934.

DERMATOLOGIC VERSUS SURGICAL TREATMENT OF CARBUNCLES AND FURUNCLES

In order to ascertain the accepted methods of treating carbuncles and facial furuncles, Samuel Ayres, Jr., Nelson Paul Anderson and Paul D. Foster, Los Angeles (*Journal A. M. A., March* 13, 1937), mailed approximately 500 questionnaires to representative dermatologists and surgeons in all parts of the country. A tabulation of the results of these questionnaires revealed the fact that dermatologists tend toward conservatism in the treatment of carbuncles, whereas surgeons are more inclined to use radical procedures. Both dermatologists and surgeons usually practice conservatism in the treatment of early facial furuncles. Dermatologists employ x-rays much more frequently than surgeons. The average duration of treatment by surgeons was nearly twice as long as under dermatologists. The mortality was greater under surgical than under dermatologic treatment. Without exception, dermatologists who answered this question reported good cosmetic results in cases treated conservatively. Most of the surgeons ignored the question and a few reported cosmetic results as being from fair to good. The technic employed by the authors is described. It includes unfiltered x-rays, specific immunization, local applications, drainage, phenol puncture and general care. Any physical abnormalities such as anemia, focal infection, diabetes or gastro-intestinal disorders should be sought out and treated. Dietary indiscretions should be corrected and an adequate vitamin intake assured. The use of yeast or tin preparations has not proved efficacious.

THE IMPORTANCE OF THE LYMPHATIC CONSTITUTION IN SURGERY

A complete physical examination of patients before operations should include examination of lymph follicles of the tongue; lymphocytosis should also attract attention. Positive findings suggest a further search for stigmata of lymphatic constitution. If such are found, a roentgenogram of the region of the thymus gland should be made. If a persistent or hyperplastic thymus is present, it should be irradiated before any surgical procedure. Thymic hyperplasia, with or without ob-

jective symptoms, is potentially dangerous to life. If patients with status thymico-lymphaticus are operated upon, special care must be taken to avoid traumatism; tissues should be handled gently in order to avoid the formation of adhesions. This applies chiefly to laparotomies and operations on joints.—Dr. Jos. K. Narat, in *Am. J. Surg.*, Oct., 1932.

Society Proceedings

MERCER COUNTY

Dr. C. M. Murrell of Sherrard was elected president of the Mercer County Medical society at the annual business meeting, April 13, at the public library rooms in Aledo. He succeeds Dr. L. L. McIntyre of New Boston, and served during the past year as vice-president.

Dr. L. E. Robinson of Aledo was elected vice-president and Dr. V. A. McClanahan of Aledo was re-elected secretary-treasurer. Appointed as members of the board of censors are Drs. J. W. Wallace and C. O. McCreedy of Aledo and T. D. Coe of Keithsburg.

Dr. McClanahan was elected as the delegate to the annual meeting of the state medical association in Peoria on May 18, 19 and 20. Dr. Walter Miles of Viola was elected alternate delegate.

Features of the program were talks by Dr. Frederick H. Lamb of Davenport, who discussed "Comparison of Defects in Various Types of Anemia," and Dr. Harold M. Camp of Monmouth, secretary of the Illinois Medical Society, who spoke on eradication of syphilis. His talk was illustrated with lantern slides.

OGLE COUNTY

Ogle County Medical Society met at Dr. Kittler's home, Rochelle, April 22, 1937.

Dr. Hart E. Fisher, Chief Surgeon Chicago Rapid Transit, gave a very instructive talk on "Mental and Physical Causes of Accidents in Industry."

Following the talk and discussion a film was shown of the highly efficient system of physical examinations employed by the Transit Company. The guests were all invited to partake of a delicious luncheon served by our hostess.

A. R. Bogue, Sec'y.

Marriages

Romus Arnold, Joliet, Ill., to Mrs. John Edgar Brock of Evanston in Lansing, Mich., in March.

Judd R. Breakstone to Miss Gertrude Stern, both of Chicago, January 29.

Clarence S. Costigan, Moline, Ill., to Miss Frances Ostewig of Chicago, Nov. 26, 1936.

Leslie D. Darner to Miss Lucie Demery, both of Granite City, Ill. in Palmer, March 28.

Joseph G. Gustafson, Moline, Ill., to Miss Hilda Koosman of Wausau, Wis., Sept. 21, 1936.

Personals

Dr. John J. Hammond, St. Louis, discussed pneumonia before the Madison County Medical Society in Highland, April 2.

Dr. Florimond J. LeBlanc, addressed the McDonagh Society for Clinical Research, April 16, on "Oxidation and Reduction in Colloidal Chemistry."

Dr. George Halperin addressed the Jewish Physicians Fellowship Club of Chicago, April 12, on "Educational Trends in the U. S. S. R."

Dr. David O. N. Lindberg, Decatur, discussed "The Mantoux Test: Interpretation in Infection and Disease" before the Chicago Tuberculosis Society, April 15.

Dr. Hans H. F. Reese, Madison, Wis., addressed the Chicago Neurological Society, April 15 among others, on "Insulin Shock Therapy of Schizophrenia."

At a meeting of the Chicago Pathological Society, April 12, Dr. Dallas B. Phemister spoke, among others, on "Composition of Gallstones Formed in the Common Duct."

Dr. Gaius E. Harmon, epidemiologist with the Chicago board of health, has resigned to accept a similar position with the Detroit Department of Health.

Roentgenographic examination in obstetrics was discussed before the Chicago Gynecological Society, April 16, by Drs. Robert P. Ball and Howard C. Moloy, New York, and Paul C. Hodges and Adolph Hartung, Chicago.

The Chicago Orthopaedic Society was addressed, April 9, by Drs. Harry E. Thompson, Tucson, Ariz., on "Chronic Atrophic Arthritis," and Sumner L. S. Koch, "Infections of the Hand in a General Hospital."

Dr. Arno B. Luckhardt, professor of physiology, School of Medicine, Division of the Biological Sciences, University of Chicago, has been elected a fellow in the International Society of Anesthesia Research in recognition of his discovery of ethylene as an anesthetic.

Chauncey D. Leake, Ph.D., professor of pharmacology, University of California Medical School, discussed "Central Nervous System Depressant Drugs" before the Sangamon County Medical Society, Springfield, April 1.

The Chicago Ophthalmological Society, among

other speakers, was addressed, April 19, by Drs. Theodore E. Walsh on "Some Results of Intranasal Dacryocystotomy in Dacryocystitis" and Raymond Carmody, "Ophthalmoplegia and Exophthalmos as a Complication of Herpes Zoster Ophthalmicus."

The Chicago Gynecological Society was addressed, March 19, among others, by Drs. George C. Finola on "Bone Changes in the Fetus Following the Administration of Dicalcium Phosphate and Viosterol to the Pregnant Mother," and Morris Edward Davis and Sarah A. Pearl, "Biology of the Human Vagina During Pregnancy."

The Peoria City Medical Society was addressed, April 20, in Peoria by Drs. Robert E. Plunkett, Troy, N. Y., general superintendent of tuberculosis hospitals, New York State Department of Health, on "The Role of the Family Physician in the Control of Tuberculosis" and Maxim Pollak, "Results of Tuberculosis Control in Peoria."

Dr. Francis E. Senear, Chicago, will address the Adams County Medical Society, May 10, in Quincy on "Diagnosis and Treatment of Early Syphilis." A symposium on intravenous medication was presented before the society April 12 by Drs. Milton E. Bitter, James F. Merritt, Warren F. Pearce and Walter M. Whitaker, all of Quincy.

The Chicago Urological Society was addressed March 25, among others, by Dr. Harry E. Kasten, Beloit, Wis., on "Metastasis in Hypernephroma." Dr. Homer G. Hamer, Indianapolis, will address the society, April 22, on "Diagnosis, Differential Diagnosis and Treatment of Metastatic Infections of the Kidney" and Dr. Vincent J. O'Conor will discuss the etiology of the subject.

Dr. Anton J. Carlson, professor and head of the department of physiology, School of Medicine, Division of Biological Sciences, University of Chicago, discussed the control of the endocrine glands at Loyola University School of Medicine, April 2. The lecture was the ninth of an annual series established in 1929 by Alpha Omega chapter of Phi Beta Pi medical fraternity in memory of the late Dr. Samuel A. Matthews, who was professor and head of the department of physiology, pharmacology and therapeutics at Loyola.

Dr. E. S. Hamilton, Kankakee, addressed the Kankakee County Medical Society at a special meeting April 2, on "The Future of the Practice of Medicine."

Samuel M. Feinberg will give two lectures on "Allergy" to the classes at Wright Junior College on April 22 and May 5.

Doctor Daniel H. Levinthal was invited to be the guest speaker at the weekly luncheon meeting of the Will-Grundy County Medical Society in Joliet on April 7, 1937. His subject will be "Bone Tumors, With Particular Reference to the Eradication and Immediate Reconstructive Surgery in Benign Lesions."

Dr. R. R. Smith, Managing Officer of the Kankakee State Hosptial, was host at a 6:30 o'clock dinner for the members of the Kankakee County Medical Society, April 9. After which, Dr. A. A. Low of Chicago, discussed, "Insulin Shock Theraphy in the Treatment of Dementia Praecox."

Doctor Samuel M. Feinberg has been invited to give the evening address at the annual banquet and meeting of St. Joseph County Medical Society at South Bend, Indiana, on May 19. His subject will be "Air-Borne Non-Pathogenic Fungi. A Newly Recognized Menace to Allergic Individuals."

A joint meeting of the Champaign and other constituent counties of the eighth district was addressed on Wednesday night, April 7, by Dr. Winston H. Tucker of the Department of Public Health on some aspects of the Federal Social Security Act to be administered through public health, by Dr. Paul H. Harmon, Superintendent of the Handicapped Children for the State of Illinois on provisions of the Federal Social Security Act for crippled children and by Dr. Harold M. Camp of Monmouth, Illinois, on the Federal Social Security Act for the medical profession.

Dr. Max Thorek addressed the Lafayette Academy of Medicine at Lafayette, Indiana, Tuesday, April 27th. His subject was "Advantages of Electrosurgical Obliteration of the Gallbladder."

Dr. Disraeli Kobak has received from Brussels, Belgium, the diploma and insignia of a Commander of the Royal Order of St. Georges in recognition of his literary work in the field of physical medicine.

News Notes

—Numerous applications received by the State Department of Public Health from physicians seeking employment as clinicians in venereal disease clinics indicate an erroneous idea concerning the administrative policy with respect to the venereal disease control program in Illinois. The State Department of Public Health does not now operate and does not propose to establish and operate any clinics for the treatment of patients infected with venereal diseases. The Department has begun and proposes to continue and expand the practice of rendering financial aid to local communities for the establishment and operation of venereal disease clinics which are employed as one factor in a satisfactory community program of social hygiene. The administration of the clinics as well as the entire program is a local matter, the State Department of Public Health insisting only that the personnel engaged be well qualified and the program meet reasonably high standards. Otherwise local authorities will have complete jurisdiction over the employment of personnel and the execution of the work.

—The annual meeting of the Iowa and Illinois Central District Medical Association will be held Thursday, May 27, 1937, at the Outing Club, Davenport, Iowa. The following program will be presented, beginning at 3 P. M.

French K. Hansel, M. D., St. Louis, Mo., "Allergy"; W. C. Alvarez, M. D., Rochester, Minn., subject to be announced; Arthur E. Hertzler, M. D., Halstead, Kan., "Surgery of the Thyroid"; W. W. Bauer, M. D., Chicago, "Popular Beliefs That Are Not So."

There will be a dinner at 6 P. M. and election of officers for the ensuing year.

—An evening course in physical therapy began at Northwestern University Medical School, April 5, and will continue until June 15. Further information may be obtained from Dr. John S. Coulter at Northwestern.

—Plans are under way to establish a medical historical museum at Loyola University School of Medicine. A portrait of the late William C. Austin, Ph.D., professor and head of the department of physiologic chemistry at the school, has been presented to the school's library.

—Presbyterian Hospital expended $846,571.52 in 1936 to care for 11,503 patients in the hospital and 31,879 nonhospital patient visits. An additional $96,129.53 was expended to maintain the school of nursing and nurses' home, while the cost of free care given to 5,554 part pay and 2,437 free patients was $183,299.50.

—The Chicago Medical Society held a public meeting on conservation of health, March 17, with Dr. Burt R. Shurly, Detroit, as the guest speaker. Dr. Shurly discussed the periodic health examination, and the following Chicago physicians spoke on special subjects: Drs. Austin A. Hayden, hearing; Nathan S. Davis III, heart; G. Henry Mundt, vision, and Arthur H. Conley, orthopedics.

—Dr. Paul H. Harmon, instructor in orthopedic survey, University of Chicago, has been appointed director of the crippled children's bureau of the Illinois Department of Public Welfare, with offices in Springfield, effective April 1. The university has granted Dr. Harmon a leave of absence to organize the state's program for crippled children, which will be financed by social security funds. The project will include a census of crippled children; provision for the care of indigent crippled children, and an orthopedic field nursing and follow-up program.

—The first of a seres of clinics to be used in venereal disease control was opened in Cairo April 1 by the state health department. Although treatment will be available only to persons unable to pay, a generalized campaign will be centered at the clinic. Financed jointly by the local and state governments, the clinic at Cairo will be under the direct supervision of Dr. Charles L. Weber, city health officer, while a governing board of three citizens and an advisory board of sixteen, representing all civic and professional interests, will determine the policies and direct the program. Blood tests will be made free of charge for any person desiring them. It is expected that eleven clinics will be established throughout the state before July 1. The establishment of these clinics is a part of the state's participation in the national campaign against venereal disease.

—A series of lectures on obstetrics and pediatrics is being offered throughout the state as a part of the national program to improve conditions for mothers and children in rural areas. The project is under the direction of a specially appointed committee on infant and maternal

welfare in cooperation with the state department of public health, the state medical society, the Illinois Academy of Pediatrics and the American Committee on Maternal Welfare. Dr. Harold H. Hill, formerly associate in the department of obstetrics and gynecology, University of Illinois College of Medicine, Chicago, as field consultant, is in charge of arrangements. The series opened March 4 in Lincoln with a program for the DeWitt and Logan county medical societies. Dr. Louis Rudolph discussed the management of obstetric hemorrhage and Dr. Clifford G. Grulee, Evanston, infant feeding and prophylaxis of contagious disease. In Sangamon County the program opened March 11 at Springfield and in McLean County March 18 at Bloomington. Each series will run for six weeks consecutively.

Deaths

AUGUST ANDERSON, Chicago; Hahnemann Medical College and Hospital, Chicago, 1916; a Fellow, A.M.A.; veteran of the Spanish-American and World wars; aged 55; died, March 14, of organic heart disease.

S. CLAUDE ANDRUS, Rockford, Ill.; Northwestern University Medical School, Chicago, 1897; a Fellow, A.M.A.; aged 64; formerly on the staff of the Rockford Hospital, where he died, January 12, of pneumonia.

JOHN ROSCOE ASH, Brighton, Ill.; Beaumont Hospital Medical College, St. Louis, 1889; member of the Illinois State Medical Society; aged 69; died, March 19, in a hospital at Alton, of pneumonia.

HENRY M. BOIES, Albany, Ill.; Jenner Medical College, Chicago, 1910; member of the Illinois State Medical Society; served during the World War; aged 57; died, February 24, in the Veterans Administration Facility, Hines, of pneumonia.

ESTELLA CLARK CARPENTER, Chicago; Jenner Medical College, Chicago, 1903; member of the Illinois State Medical Society; aged 69; died, January 26, of carcinoma of the intestine and lung.

JAMES E. CUNNINGHAM, Chicago; Northwestern University Medical School, Chicago, 1896; aged 48; died, January 27, in the Veterans Administration Facility, Hines, Ill., of coronary occlusion.

LE ROY H. DAGGETT, Chicago; Jenner Medical College, Chicago, 1900; member of the Illinois State Medical Society; aged 64; died, February 3, in the Highland Park (Ill.) Hospital, of pneumonia.

WILLIAM H. DEMPSEY, Alton Ill.; Missouri Medical College, St. Louis, 1898; a Fellow, A.M.A.; aged 65; died, January 29, of bronchopneumonia.

WILLIAM C. DIXON, Greenville, Ill.; Beaumont Hospital Medical College, St. Louis, 1895; member of the Illinois State Medical Society; president of the Bond County Medical Society and past president of the Vermilion County Medical Society; formerly health officer of Danville; aged 67; died, February 12, in the Barnes Hospital, St. Louis.

JOHN FAHRNER, SR., Joliet, Ill.; Bennett College of Eclectic Medicine and Surgery, Chicago, 1882; aged 82; died, Dec. 29, 1936.

ANDREW GRASSAU, Caledonia, Ill.; Rush Medical College, Chicago, 1896; aged 68; died, February 10, in a hospital at Fort Myers, Fla.

H. NELSON HEFLIN, Kewanee, Ill.; Minneapolis College of Physicians and Surgeons, 1895; a Fellow, A.M.A.; formerly health officer of Kewanee; on the staffs of the Kewanee Public Hospital and St. Francis Hospital; aged 72; died, January 15.

THOMAS HUGHES, Chicago; Northwestern University Medical School, Chicago, 1892; a Fellow, A.M.A.; aged 70; died, February 5, of bronchopneumonia and diabetes mellitus.

CHARLES L. JONES, Noble, Ill.; Barnes Medical College, St. Louis, 1903; aged 62; died, February 2, at the Olney (Ill.) Sanitarium, of cardiovascular renal disease.

ALBERT A. LOWENTHAL, Chicago; College of Physicians and Surgeons of Chicago, 1895; at one time adjunct professor on mental disease at his alma mater; formerly on the staff of the Cook County Hospital; aged 63; died, March 19, of coronary occlusion and diabetes mellitus.

NORMAN BUELL MARSHALL, Chicago; Jefferson Medical College of Philadelphia, 1883; aged 76; died, February 26, of carcinoma of the ear.

DELMAR IVAN MARTIN, Springfield, Ill.; Northwestern University Medical School, Chicago, 1929; member of the Illinois State Medical Society; president of the county tuberculosis board; served during the World War; aged 35; died, February 21, in St. John's Hospital, of pneumonia.

MORRIS MEYEROVITZ, Chicago; College of Physicians and Surgeons of Chicago, 1890; formerly member of the Illinois State Board of Health and the Chicago Plan Commission; at one time on the staff of the Cook County Hospital; aged 76; died, March 3, of coronary thrombosis and arteriosclerosis.

THOR CHRISTIAN ROTHSTEIN, Chicago; Karolinska Mediko-Kirurgiska Institutet, Stockholm, Sweden, 1897; professor emeritus of neurology, Rush Medical College; aged 72; on the consulting staff of the Augustana Hospital and on the staff of the Presbyterian Hospital, where he died, February 19, of arteriosclerosis and coronary thrombosis.

FOREST CLYDE VAN HOOK, Mount Pulaski, Ill.; Northwestern University Medical School, Chicago, 1913; for several years a member and president of the board of education; aged 49; died, January 29, in Tucson, Ariz., of diabetes mellitus.

SILAS WILKIN WEIR, West Union, Ill.; St. Louis College of Physicians and Surgeons, 1906; a Fellow, A.M.A.; aged 57; died, January 30, in the Union Hospital, Terre Haute, Ind., of acute dilatation of the heart.

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